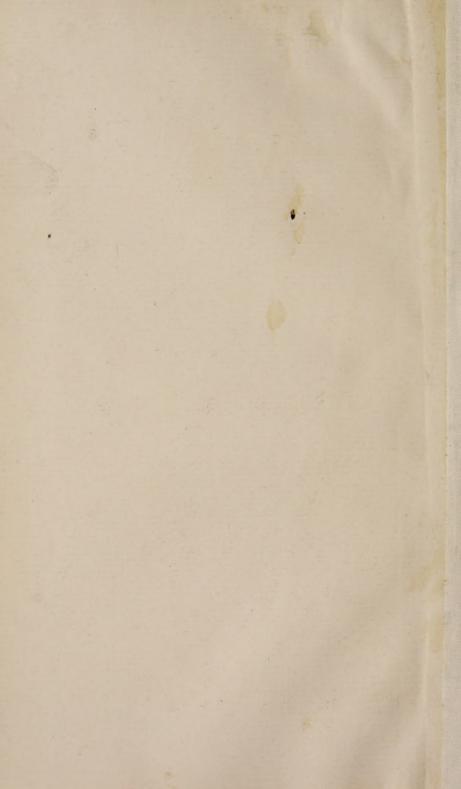
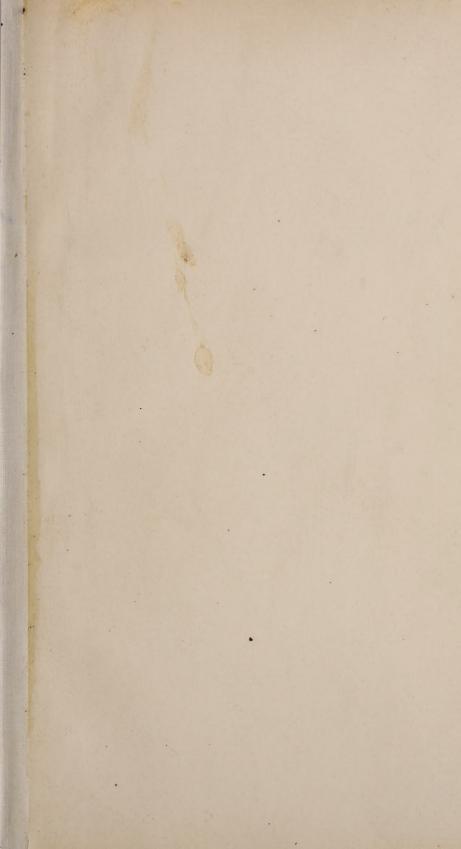


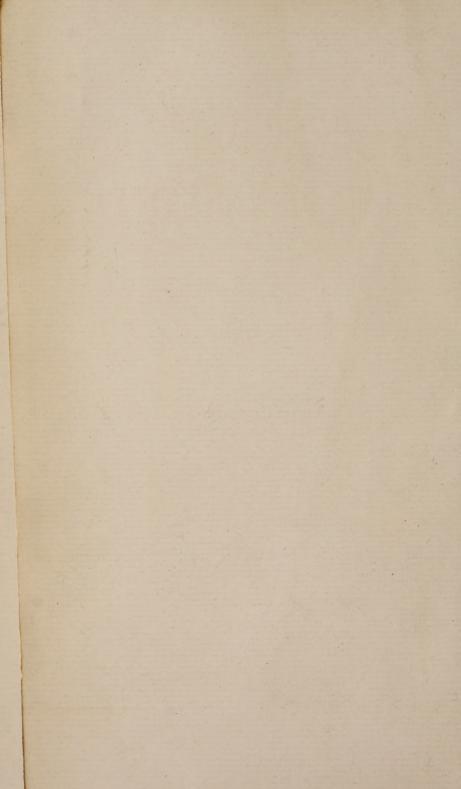
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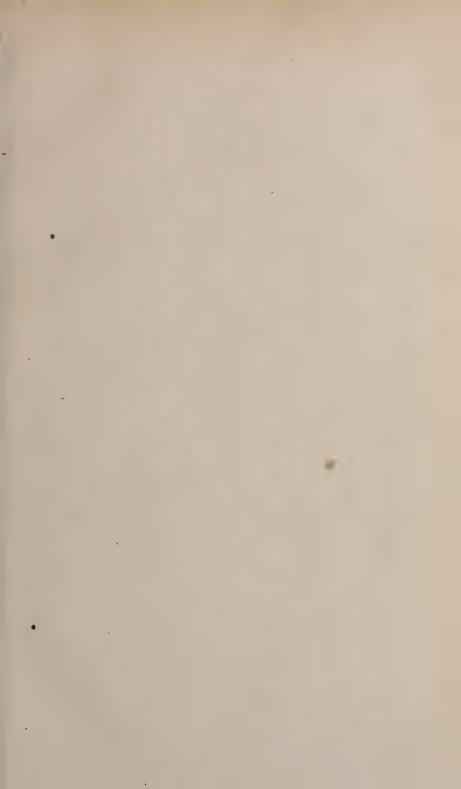
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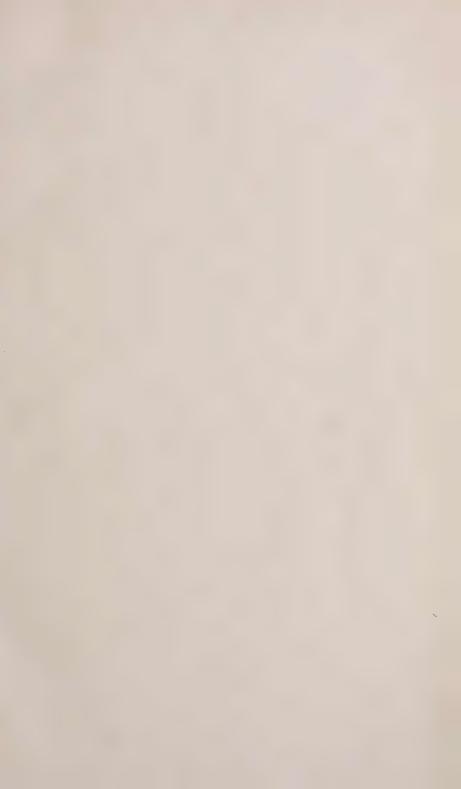
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#### AMERICAN

#### JOURNAL OF INSANITY.

JULY, 1891.

## SOME NOTES ON THE PRESENT STATE OF PSYCHIATRY.*

BY HENRY P. STEARNS, M. D., Superintendent of the Retreat for the Insane, Hartford, Conn.

It is barely possible that there is now present some member of this association who has indulged in a desire for the presidential chair. I admit that the supposition is a violent one, but possibly not so much so as to preclude its use by me on this occasion. If therefore any one present has been so rash, I beg to suggest to him that if he has any regard for his future peace of mind he will hereafter forego any anxiety on the subject, until he shall have definitely settled in his mind what would be the subject of his retiring address. I make bold to tender this counsel because of the experiences through which I have passed during the last few months; and now at last, in the absence of any more definite and formal paper, I am constrained to invite your attention merely to the reading of

Some Notes on the Present State of Psychiatry.

Within the year passed a criticism has been advanced to the following effect: that while new discoveries have been made relating to the actiology and treatment of several of the genera of disease; while surgery in its relation to some of the organs and cavities of the system has made advances with rapid strides and attended with brilliant discoveries; while the percentage of recoveries from some diseases which are grouped under the recognized specialties, has sensibly increased; yet there has not been any corresponding advance made in the specialty of insanity; that,

^{*}Address of retiring president, forty-fifth annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, held at Washington, D. C., April 28-May 1, 1891.

notwithstanding the fact that large sums of the public money have been expended in the construction of hospitals and asylums for the treatment of the insane, and that they have been consigned to the more especial care of physicians with large opportunities for study and observation; yet there have not been corresponding results in the way of increased knowledge; that, in fact, we are still involved in the mists of hypotheses, and really know very little more regarding the ætiology of insanity than we did twenty years ago; while the percentage of recoveries remains lamentably small. It is not my purpose at present to question the pertinence of this criticism, but first to point out some of the reasons for whatever measure of it may be just.

As preliminary to this, however, it may be remarked that though the criticism is suggested by our medical brethren, vet it reflects so far as it reflects at all upon the whole medical profession. The field of psychiatry is not a closed one. It is open to all comers; nay, it invites the freest entrance within its boundaries, and in several of the medical colleges of the country courses of lectures upon insanity are yearly delivered by alienists and those in charge of asylums. Indeed there are many reasons why the general practitioner should become acquainted with and be especially interested in it. It concerns the welfare and happiness of a larger number of the body politic than that of any other specialty; and he is the only one who has the opportunity to observe and study its earlest indications as presented in imperative concepts, the initial elements of delusions, dominant ideas and inconsistent conduct. He should be able better than any one else to connect these early symptoms with any abnormal physical conditions from which, or in connection with which, they may appear. To him the family or friends first appeal for counsel and aid; then, if at any period, the morbid mental tendencies, not having become fully established, may the more easily be checked and turned into channels of healthy activity. This also is the time for ascertaining more perfectly what may be the normal mental character of patients, as it has not yet become so fully obscured by disease as at a later period. It is the general practitioner who covers the broad field of mental affections growing out of systemic diseases of different orders, especially those attended with inflammatory processes, fevers, and great suffering, and which appear to hold a position somewhat midway between sanity and fully confirmed insanity. The action and reaction between mind and body which

has long been observed but never profoundly studied, during the experience of suffering and the progress of chronic diseases; the limitations of mental activities at such times, as compared with those existing both in a state of health, and in certain forms of insanity, present, it seems to me, a far more promising field for psychological research than is ever possible after the mind has become more profoundly deranged. And especially, when we come to study the physiology of normal mentality, does the general practitioner experience the largest opportunities for observation. He, in common with all other scientists, has the field clear for brilliant advances, and we beg to extend to all the most cordial welcome in laboring with us to advance the physiology of mind.

My present purpose, however, is to hint at some of the obstacles which have hitherto and still do tend to block up the way of progress in the specialty of insanity. And first, the fact that we do not fully understand, or at least, are not agreed as to the nature or character of normal mentality. Two or three generations ago it was believed to consist in the activity of a soul or spirit, which was enthroned somewhere in the brain. No explanation of the modus operandi of such activity eventuating in thought, as independent of the body, was apparently ever deemed necessary, or considered as a legitimate scientific inquiry.

In more recent times, and especially since the microscope has revealed to us the wonderfully complex and highly organized text. ure of the brain; and modern physiological research has made known more perfectly the functions of many parts and organs of it, the old theory has been rejected, and a leap has been made to the other extreme. A theory has been accepted by some to the effect that the whole thought process consists simply in the molecular activity of this highly organized cell-structure of brain. The hypothesis that a soul or any special entity exists within the brain or elsewhere in the body, is a snare and a delusion and without proof. As a working theory for elucidating the phenomena of mind it is worse than useless. Perceptions, memory, reason, judgment, all consist of mere movements or vibrations of different kinds or degrees of multitudinous nerve fibrils and cells, which are composed of matter in its most highly organized form. Attention and will are only different forms of this same activity of nerve tissue, as it becomes affected through external or internal impressions, while under the influence of the blood. In the words of one of its most vigorous advocates, "that which thinks, reasons, wills; that

which is consciousness in phenomenon—is the brain; not any suppositious entity, of the existence of which we have no evidence whatever, and of the need of which as an hypothesis he is not conscious."

On the other hand, however, there are some who still feel conscious of the need of an additional element in any hypothesis which is assumed as a working basis for elucidating the physiology of the thought-process. They are unable to accept mere assertion for argument, and much less for demonstration. They freely admit the dependence of mind upon the brain and nervous system in its exhibitions, and that no such processes as memory, reason, attention, and will, can be perfected and projected to other minds except by the agency of the brain; also that these several activities of the mind are defective and imperfect, weak or strong, largely in proportion as the brain is in a normal or abnormal condition. They also admit that the hypothesis of molecular activity only, has the merit of simplicity, and if true ought soon to place us on vantage ground in elucidating the physiology of mind. But, on the other hand, they cannot remain indifferent to the fact that any hypothesis, to be accepted as reasonable, must harmonize with and cover the phenomena to be explained. Now, does molecular activity, or the vibration of cells and fibrils upon each other, present any resemblance to thought? Such vibration pre-supposes and consists simply in movement. This movement may occur with the inconceivable rapidity of light, but, after all, it is only movement, and if there results from, or in connection with that movement of the anatomical elements of brain, something of a nature unlike motion, then it becomes necessary to add another element, which resides in the material affected by movement, to explain the phenomena presented. This element must be akin, in its nature, to that which results, namely, thought. The nature of movement is simple and homogeneous in whatever realm of matter it may appear, and, so far as we know, it becomes only motion; but thought, as it appears in reason, will, imagination and judgment, has no resemblance to mere motion. It may be attended by or be dependent upon it, but in its essence and qualities it is so unlike it that the two cannot be compared. Mere movement of cell, whether simple or complex in its constitution, therefore, becomes as unscientific as an explanation of thought as mere movement of spirit.

Such considerations are thought to require that, in the solution of the thought-problem, another element must be added. This resides in the brain and nervous system, and in the processes of thought, reflection, memory, and judgment, there exists a correspondence or parallelism of action between the cell and this additional element. The one may act upon, or be acted upon, by the other through impressions from without, and in this action and interaction, the quality and character of thought becomes modified, approved or disapproved, and in some measure changed.

Such, then, in briefest words are the hypotheses which have been advanced as explanatory of normal mentality. How far either of them may or may not be likely to meet with future demonstration, it is not my purpose to argue, even if it were a legitimate subject for such an occasion, but simply to call attention to the fact that neither of these hypotheses has yet been accepted by all; and also that physiology has not yet vouchsafed to us any scientific demonstration on this matter. We, therefore, in common with our medical brethren, are still standing as in a darkened chamber, and seeking for rays of physiological or psychological light. We do not know ourselves. How vast an obstacle, therefore, confronts us at the very threshold of the closed and doubly barred door, when we attempt to enter the temple of thought! Is it strange that we have not made greater advances in healing its disorders, when the nature of its normal activity still remains unknown?

But, while these conditions of the problem in psychiatry have largely blocked up the way of progress, and have been of radical character, yet they have not been the only hindrances. Since the time when the Divine Master loosed the chains of the lunatic who lived in the solitudes of the mountains on the farther shores of Jordan, and whom no man had been able to tame or to bind, down to within the memory of some of us, the lunatic has been regarded as an object, by turns, of fear and scorn, ridicule and mockery. No man, or but few men, have been his friends. During long centuries he wandered, as he did of yore, among the mountains and slept in by-places and out-houses. The nature of his malady was enshrouded in superstition and densest darkness, and neither physician nor philosopher ever dreamed of unraveling the mystery of his possession by scientific investigation.

It is true that the character of other forms of disease has been misunderstood and wrapped in mystery during long periods. It

is also true that the treatment of disease in general has been conceived in ignorance and administered with more or less of superstition; but, after all, it has been intelligent in comparison with that of insanity. The lesion was of the flesh, and its effects could be observed; its progress was attended with physical signs and visible evidence. The subject could explain to others his sensations and anxieties, while they could sympathize with, and were only too desirous of relieving him. Physical exploration of the body and some of its organs by means of the stethoscope and speculum is so easy that we do not wonder that it was understood and used in diagnosis even before the time of Hippocrates. Many of the conditions of physical disease are so tangible and easy of observation, that all desire for knowledge and love of gain must have been absent if physicians had not investigated and experimented with a view of relieving suffering, and of bringing to light the ætiology and pathology of disease. It is true that these investigations during long ages were attended with comparatively meager results. The day dawned slowly; the light which appeared was of uncertain character, and many things which at first appeared to be true, were afterwards found to have little foundation in fact. But what I desire to call attention to, is that while general disease has long been largely free from such superstition as would prevent its investigation—and there have always existed great incentives to prosecute such investigations-yet this has not been true in relation to insanity until within very recent times. Its symptoms are so different from those pertaining to other diseases, and they have been so thoroughly enshrouded with false conceptions and beliefs in relation to their nature, that a scientific study concerning them was rarely thought of, or undertaken. The day, however, seems to be dawning, and a more rational pathology has supplanted the ancient one. But even at the present time how few are the laborers in this field, which promises so large a harvest, as compared with those in other departments of medicine. The general practitioner shirks responsibility, if he does not quickly lose interest, and hurries his patient out of his professional hand.

It is said that much has been done to facilitate the study of mental disease in recent times; and in some ways this is true. The lunatic is no longer left to wander in the woods; he is gathered into jails and poor-houses, hospitals and asylums, by the hundreds; and when he dies, as he sometimes does, he is not always hurried with indecent haste into the ground. Sometimes his brain serves for the study of a student, if the over-worked physician can find time to have it preserved long enough. But the general practitioner rarely goes near him, and when he does, it is rather with the purpose of curiosity, or duty, than that of professional zeal and study. In this respect the conditions pertaining to insanity and general disease are separated as the poles from each other. Need any physician question because our specialty, in which he fails to be intelligently interested, has not yet made greater progress?

But, having suggested some reasons why our advance has been no greater, and has been unsatisfactory to ourselves above all, I now hasten to question the accuracy of the proposition that we have been left far behind in the great forward movement of general medicine. Indeed, I think I hear some of the older members who have in mind the conditions of our specialty as they existed thirty years ago, rather vigorously denving its truth. Let us see. The advance made in general medicine relates first to methods of treatment and management; and second, to the ætiology of disease. Under the first of these heads will be included a more scientific appreciation of the physiological effects of medicine, and improvements in the methods of its preparation for exhibition; a larger appreciation of the importance of hygiene as a means of prevention, and the construction of hospitals of a higher order; education in, and an improved system of nursing and attendance upon the sick. Under the second head, will come what is perhaps of greater importance than anything else, the introduction of antiseptic surgery, advances in physiology, and the germ theory of disease.

It is hardly necessary to remind you that in the above enumeration of the elements of progress, the specialty of insanity shares with general medicine in every point (unless it may be that ætiology) which is of such a character as to render it possible. And further, it may fairly be claimed that in no class of disease has there been more marked improvement in all that pertains to its conduct than in that of insanity. This relates to the rejection of the old theory of its nature, which was conceived in the ignorance of the middle ages, and the consequent abolition largely of physical and mechanical force in its management; to a very considerable increase of scientific information pertaining to the

physiology of the brain; to the varied architecture and construction of hospitals and asylums; and finally, to a more full appreciation of the character and symptoms of the different genera of the disease, with a correspondingly more accurate prognosis. If, however, any one is still infected with a questioning doubt in reference to this matter, he can hardly do better than visit the old church in Gheel, which still stands as a visible evidence of how insanity was formerly treated within its sacred walls. The locations are. I believe, still indicated where patients were dragged about the altar on the stone pavement, some special number of times, by attendants, according to the prescriptions of the physician, in order to exorcise the evil spirit. Or what will be easier, make a visit to one of the oldest institutions for the insane in this country, and behold the spot where once, and not so long ago either, there existed a tank which was kept filled with water, and near to which there stood a large crane with a chair attached. Into this chair it was customary to place and secure patients firmly, and then they were turned around over the tank of water, into which they were plunged such a number of times as the physician ordered, or during the pleasure of the operator. In the basement of another of the oldest institutions in the country, there formerly existed a cage, built of brick, windowless and seatless, into which excited or socalled refractory patients were at times placed and kept on bread and water in solitary confinement for longer or shorter periods. It would be quite impossible to institute any comparison as between: the internal appliances and conditions of hospitals as they existed a few years ago, and those in any well ordered one of to day.

And I know of no order of disease in which such large rewards of investigation, in the way of genera and species, together with a differentiation of these, have followed, as in relation to insanity. Examine the tables of nomenclature and classification as found in the treatises of psychiatry at the present time, as compared with those of the recent past. In reference to the percentages of recoveries, which are yearly reported from our hospitals, we must admit that they remain far too small. But may this not be said in reference to the per cent. of recoveries in all general hospitals in which diseases of a portracted and grave nature are treated? How much higher is the per cent. of recoveries from the orders of fevers, or from tuberculosis, the pneumonias, the rheumatisms and the cancers, at the present time, than it was fifteen years ago? Have there appeared any statistics indicating largely increased rates of recoveries are treated and grave nature are treated?

eries in any of these forms of disease in consequence of modern methods of treatment? I beg to submit that until such statistics are forthcoming, we need not be over-sensitive to criticism on this point. We may also properly question the professional wisdom of a movement to establish hospitals for the insane whose patients shall be under treatment by those who have had experience only in the conduct of general diseases, because the per cent. of recoveries has been no higher under the present system of management. Is not the beam still rather too large in the eye of general medicine, for it to be able to extract with skill the mote in the eye of psychiatry? It is true, and none may rejoice in it more fully than we do, that brilliant advances have been made in the domain of surgery, and in the atiology and conduct of diseases in general; but I submit that in no respect have they been more beneficient and far reaching in their results, than those which have pertained to the moral and medical treatment of the insane. It, however, has not been so clearly apparent in the latter field for several reasons.

The difference in character pertaining to the advances in psychiatry as compared with those in other fields of medicine is so great; and the specialty of insanity is so far removed from the study and observation, and even the appreciation of the general practitioner; the internal economics and management of institutions for the insane; the system of moral treatment and mental hygiene differ so greatly from those pertaining to physical disease, that we need not be surprised that they have not been more fully recognized either by him or by the public. The great work has gone on in hospitals and homes for the most stricken and smitten of all sufferers, those who in the vast majority of cases are unable to appreciate what has been done for them, and when recovered rarely ever afterwards allude to their experience. How entirely different this is in relation to patients affected with other forms of disease we all understand. Indeed, I am of the opinion that the annals of psychiatry may be compared with those of any other specialty of medicine without fear of the contrast in the matter of hospitals and treatment, together with advances in and knowledge of the different genera of the disease, and the physiology of that organ which constitutes the special field of investigation.

Notwithstanding, therefore, the disadvantages under which psychiatry has been as compared with some other departments of medicine, rendering its progress, if made at all, necessarily largely by means of an empirical practice, yet we may take courage from past achievements, and hope for fuller fruition hereafter. And it would seem that the present is an auspicious period in some respects in which to be both expectant and hopeful.

In this connection, permit me to call attention to one or two auspicious indications. The first relates to commissions in lunacy. The past year has been the first in the experience of such a commission for the largest state of our Union. It embraces medical, legal and business members, and if I mistake not, is the first one in this country so constituted, and compensated as to require its whole service in the welfare of the insane of the state. This movement may be regarded as all the more important from the fact that other States before long may be led to establish similar boards. A few words therefore in reference to the scope and duties of such commissioners may properly be presented for your consideration.

It appears to me beyond question that the advantages of having all institutions for the insane subject to the periodical inspection of independent authorities, who are not immediately concerned in their regular administration, and who are intelligently interested in the welfare of the insane, are very great; and that these advantages accrue not only to the inmates, but also and especially to those having them in charge. It is, however, of the first importance that such independent boards be properly constituted and organized. If they are composed of individuals who know little about insanity, and less about the management of institutions for the care of the insane, or are appointed to the office as a reward for services they may have rendered to political parties, and are commissioned as a species of knights errant, with free lances for any or everything which may present itself for consideration, or create a public sensation; and especially if they are not required to report the methods of their official duties to regularly constituted authorities, their labors will prove as barren of good results as have been those of some of their predecessors in this difficult field of labor; that is, they may serve as a basis for vouchers for the public money received, and little else.

Again: such commissions may be composed of members well qualified in many ways for the duties required, and yet invested with altogether too much power; that is, the assigned sphere of their activities may be too broad. For instance, if the laws by virtue of which they act should require them not only to supervise

the care and management of all the insane who, in the state, are outside of asylums, but also require them to assume the direction and management of those in asylums, and extend their powers to the internal conduct and economics of institutions, it is clear that such a course would speedily change the whole system of asylums which has hitherto obtained not only in this country, but in most others. It would reduce the superintending physician to the position of a mere lieutenant, who should execute the orders of the commission. It is very certain that such a course would tend rapidly to deteriorate the service, and that in a not distant future, the position of superintendent would be filled by another class of professional men. Any physician competent to have the charge and treatment of the patients of an institution intrusted to him, must certainly be better able to conduct the daily administration of the internal economics and professional duties connected with it than any number of commissioners who may visit its wards two or three times a year. Moreover, every superintendent requires the stimulus which comes from responsibility and anticipated professional success. He therefore should be permitted to devise for himself the best methods for his work, and the various measures by means of which it may be the more perfectly and successfully accomplished, as physicians do in other departments of the profession. If he fails in securing the highest essentials, then let the authorities and the public, if need be, know it.

There is, however, a sphere of action for a commission in lunacy, and in some respects it is a most important one. An ideal commission should have among its members representatives from law, medicine, and affairs, as the commission of the state of New York has. There can be no question that they should be selected from the higher ranks of their callings, and with especial reference to their qualifications for efficiency in the discharge of their very difficult and oftentimes perplexing duties. The medical members should certainly have had experience in the conduct of institutions for the insane. The sphere of their labors will cover all the insane of the state. Their duties in relation to institutions will be mainly confined to visits of inspection, covering all departments of administration and the methods of executive work; conferences with certain classes of patients; and consultations with superintendents in reference to their histories, prognoses, and future disposition. They will also relate to such assistance by consultations as may be possible in the relief of those misunderstandings and suspicions which often arise in the morbid mental states of patients in relation to the necessity of detention and treatment, and such as may exist between institutions and the public. It will be understood that in all such consultations there exists no antagonism in the proper and efficient discharge of the duties of each party, but on the contrary, that they proceed on parallel lines, supplementing each other, and in entire harmony, for the attainment of a common public good, which both are seeking.

Reports concerning the findings of such visits of inspection and

consultation, covering observations made as to sanitary conditions, methods of treatment, condition of buildings and patients, and the general conduct of the institutions, should be required by the Governor of the state. The character of their duties towards the insane who are unprovided for in institutions, will be no less important. It will relate to securing asylum care and treatment for those who are most requiring it, either for safety or recovery; and also to providing the best attainable attendants and care for those who cannot be placed in asylums. It will also require an investigation of the forms of disease in the latter class, and the keeping a record of these cases in accordance with classifications in use in asylums, thus securing uniformity in the data of cases throughout the state. Another of the functions of such a commission would be an investigation into the conditions and causes in operation in the present forms of our civilization, and especially in educational methods pursued in the public schools which may tend to develop insanity. As officers of the state and without special relation or connection with any institution, they will be in a favorable position to secure legislation for the interests of the insane which those in their more immediate care might not be able to do. This would conduce to something like a more uniform system of care and economic management. They will also be in a nearer relation to the public, and thus better able to give it confidence and mould its opinion in reference to the interests of this body of its dependent classes. They will also be in such relations with the public authorities as to more effectually propose judicious legislation in relation to limiting the influx to our country of that class of immigrants which has hitherto contributed so large a percentage of the total number of the insane. This meager sketch will serve to indicate a few of the ways in which we may expect that commissions in lunacy will aid in the advancement of psychiatry in the several states. But, while the

character of this labor will be both onerous and important, their relations towards the established order of the care of the insane, will be one of much delicacy, and require great good judgment to enable such commissioners to avoid friction and misunderstanding. I have no doubt, however, as to the ultimate advantages to be secured.

Second.—Permit me to remind you of the fact that we already have a well endowed university—The Clark University—in which one of the leading courses of study is that of original research relating to psychology. Moreover, this university is presided over by one of our own members as president, and another as trustee. It has a Psychological Journal of its own, which certainly is an honor to its founder, to ourselves, and to our specialty in this country. Here then, within our own ranks, there exist the very means by which we may anticipate a larger measure of progress in psychology, and incidentally also in psychiatry, than would be probable if sought in almost any other way.

Here can be trained a class of students for original investigation and experimental research in accordance with the strict requirements of science. Here are already, or hereafter are likely to be, gathered the requisite means of such research, in the way of special journals and books from the centres of the medical world; also laboratories, experimental and chemical, with their various needful appliances, together with facilities for ascertaining the physiological effects of drugs.

Already there are established scholarships by means of which a higher attainment, in all that may conduce towards a more differentiated knowledge of comparative and human anatomy and physiology, may be had. Pathological research may also be prosecuted under conditions which can be had only in thoroughly equipped laboratories; studies relating to those physiological changes which occur in the sensory system during the different seasons of the year, day and night, morning, noon and evening; tests in the capacity of endurance in motor and psychic centres of the brain; the length of time required by different portions of the nervous and muscular systems to energize and to expend their store of energy; the rapidity of movement in the nervous system attending the physiological elements of sight, hearing, and general sensation; the periods requisite for peripheral irritations to pass through the afferent nerves to the sensory ganglia, thence to the cortex, and again through the efferent nerves, eventuating in

motion or speech; a study of the anatomical arrangements of all the organs of the special senses, and their co-ordinating activities in connection with sensation, ideation, and motion; in short, all those physiological activities which are associated in the formation and exhibition of thought.

I hardly need to suggest that the stimulus of such investigations, such a library, laboratories, instruments, and opportunities for study, will tend greatly to enlarge the boundaries of our specialty beyond our present vision. It will lift the status and broaden the culture of our association.

It indicates the possibility of passing beyond the routine of that care and anxiety which ever attends the practical management of the insane, into a higher sphere of research relating to the nature and treatment of their maladies. Here may be gathered those who, by virtue of their special attainments, may be able to sift the chaff from the wheat, and sit in judgment upon the merits of the work and its results, which may be prosecuted by teachers and students in the laboratories. Is it too much to anticipate that in the future such study and experiment will reflect rays of light upon the physiological activities of the brain and nervous system, which will render more clear and definite the indications for scientific treatment?

May we not also anticipate that at no distant date there will be discovered in chemical laboratories, some remedy which will act with increased efficiency in modifying and restoring nerve energy?

It has been in the laboratory that some of the most active and valuable of our recent nervine, medicines have been brought to light; and it would appear from reports which have reached us from Berlin and from many hospitals in our own country, that the outlook is good for still more important ones, in the immediate future.

A few words of suggestion in closing. The establishment of closer professional relations among the members of our association would, I think, prove to be one of the most efficient means of promoting the cause of psychiatry throughout our country. We are scattered over a vast area; our constituencies differ widely in many respects, and embrace representatives from many nationalities, and a diversity of environments. It is quite impracticable for us to meet as an association for professional conference and discussion oftener than once a year. And even this one yearly

gathering in the history of our association has proved of inestimable value to our members. It has been of service in stimulating us towards overcoming difficulties and hindrances which constantly beset our efforts in the prosecution of the work we have to do. Indeed I think it goes almost without saying, that no other single influence has been so potent in forwarding the interests of the insane throughout the country, as have been the meetings of this association.

But have we done all, or rather are we now doing all, that is expected of us, or all that we have a right to expect of ourselves, in the way of professional work?

Is it not altogether practicable to institute measures for carrying forward more and a higher quality of purely scientific work?

It may be assumed that all will give an affirmative answer to this interrogation; and that some steps may be taken looking toward accomplishing such a purpose, the suggestion is offered for your consideration of a more perfect organization of our membership, and the adoption of measures for securing the necessary legislation to enable the association to hold property. It is seen by the programme that this subject has been considered, and I trust that a committee may be appointed to devise such changes as may be deemed necessary in our present constitution to secure these objects.

As one of the results of such change in organization, there might ensue the possibility of establishing a journal which shall be the property and the official organ of the association.

The importance to it of having such a journal is apparent. How it could be secured and managed has not hitherto been so clear, but with such changes in the plan of our organization as I trust will be favored and adopted, this would be feasible. There can be little question that if we had an organ of our own, and for the conduct of which we were responsible through our regularly selected officers, it would prove one of the most potent of agencies for the cause of psychiatry in the country. How great has been the service accomplished by the journals now in the field, is fully recognized; but for one owned by the association, additional incentives and responsibilities would arise and be felt by all, and it is believed that each one would acknowledge a larger obligation to do his share, as far as possible, towards sustaining it. Such a journal would have vantage ground on which to stand from the first, and its success would be assured.

CHEST VILLED HATTER

In 1844 one of the original 13 members of this association established a psychological journal, the first number of which was published in July of that year. This I think is the oldest, or at least one of the oldest journals, in the English language which has been devoted entirely to psychiatry. I of course refer to the "American Journal of Insanity." It is proper to say that the constituency of this journal has been largely the membership of this association. The first volume was prepared by those who met during that year in Philadelphia for the purpose of forming our organization. It has, however, been published from the first, and during all these succeeding years, by the trustees of the hospital over which its founder presided during the later years of his life. All honor to the public spirit and zeal in the cause which has thus been exhibited by the trustees of the Utica Hospital! Their good purposes in this work have our high appreciation.

Whatever, therefore, may be the future action of the association in relation to this subject, it can never forget its great obligation in the past and present to the "AMERICAN JOURNAL OF INSANITY."

# SOME POINTS REGARDING GENERAL PARALYSIS.*

BY CHÂRLES F. FOLSOM, M. D.

It was only after great hesitation that I have ventured to read a paper before gentlemen whose familiarity with the insane is so much greater than mine, even with the request which the chairman of your committee has done me the honor to make.

It has been said that a thorough knowledge of general paralysis is a liberal education in mental disease. Its early stage and all stages of such cases as are treated at home or find their way into general hospitals, possess some features which are more readily studied outside of, than in, asylums and throw light upon the whole subject of establishing insanity as a material disorder of the brain rather than a metaphysical affection of an immaterial mind. If there is any tendency to follow the metaphysician rather than the pathologist and to place metaphysics above psychology or psychology above psychiatry, nothing can better bring us back to rational principles than the study of a disease embracing nearly every form of abnormal mental action, involving almost all possible morbid changes in the brain and which may be associated with degeneration of various degrees in any organ or tissue of the body. Although more is known of general paralysis than of any other form of insanity, we are still on the threshold of inquiry, so to speak, regarding much in its etiology, clinical history, pathology, prevention, and treatment.

First: What is general paralysis? Clinically, it is a primary disease, sometimes acute, but for the most part sub-acute or chronic in its early manifestations, with a definite, recognizable anatomical basis, and progressive, in which symptoms of brain failure too slight to be remarked at their actual incipiency are rapidly or slowly succeeded by a cerebral incoordination, both psychic and motor, including under the term psychic the so-called moral, as well as the purely intellectual, attributes of the mind, a disease which in its course involves every function of the brain and may in its various phases exhibit many of the symptoms observed by the neurologist as well-as most of those known to the

^{*}Read at the Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, Washington, April 29, 1891.

alienist, first impairing, then paralyzing in its steady progress all those high qualities, mental and physical, that distinguish civilized man, and finally after the utter wreck of mind and body, destroying life itself. Of the many divisions of general paralysis into several clinical types, all of them naturally more or less arbitrary, I know no other so satisfactory as Meynert's eight:*

- 1. Simple progressive dementia with the usual motor impairment which accompanies it, but, excepting hypochondriacal depression, not necessarily exhibiting other mental symptoms than dementia.
- 2. With the expansive delusions and the distinctive motor disturbances which appear simultaneously and are progressive, constituting the "classic" form of general paralysis. The mental state is usually of self-satisfaction and exaltation, but there may be depression.
- 3. Of the same type as the last, but failing its steadily progressive character, through arrest of the active process. The remissions, which seldom last so long as a year, raise hopes of recovery, but still manifest unmistakable impairment of the reasoning faculties. The psychic disturbances are much greater than can be accounted for by the atrophy of the brain alone.
- 4. Cases in which the characteristic exaltation and grand delusions reach such an astounding height that manifest motor symptoms are looked for with confidence from day to day and yet may not appear even for a year, any slight incöordination naturally being obscured by the general muscular disturbance. Meanwhile there may be such an improvement that the patient leaves the hospital for a while, once, rarely twice, on the responsibility of his family, but to return with marked motor, as well as mental signs.
- 5. A very rare form, with alternate symptoms of exaltation and depression of the type of circular insanity.
- 6. With early furious delirium, painful hallucinations, confusion and incoherence somewhat resembling acute delirium.
- 7. Progressive general paralysis, in which the characteristic indications appear secondary to other forms of insanity; for instance, after paranoia or melancholia, first described by Hoestermann.
- 8. The combined form with sclerosis in the whole cerebrospinal tract, the symptoms of tabes or spastic paralysis pre-

^{*}Klinische Vorlesungen über Psychiatrie, Wien, 1890, Braumüller.

.dominating, according as the posterior or lateral columns of the spinal cord are chiefly involved. The ascending type, in which the cord is first affected, is rare. Optic neuritis ending in atrophy and paralysis, especially of the ocular muscles, may precede marked mental symptoms.

In Paris in 1874, and chiefly by Sander in Berlin in 1876, attention was called to a period in general paralysis in which there are vague signs of mental failure for a varying length of time, perhaps for several years, antedating the pronounced symptoms. Most experts in the study of general paralysis agree with Mendel that cases which have not such a stage, short or long, are unusual, except those of rapid course, although that opinion is not universal. This early stage is most marked in Meynert's first class, the demented type, to which the recent great increase in general paralysis belongs.

To the question, What is the pathological basis of general paralysis? the answer is not easy. The disease has been called chronic meningo-encephalitis, chronic diffuse periencephalitis, and perhaps best of all, chronic diffuse cortical encephalitis, whether primarily interstitial or parenchymatous. Its end is in greater atrophy than occurs in any other form of insanity. The gross lesions correspond to these various terms and involve others by extension of inflammatory or degenerative or atrophic processes. To the naked eye the appearances may be of the most intense meningo-encephalitis or in various degrees down to such a simple atrophy as may be seen in many wasting diseases. The essential microscopic changes found in the brain are beautifully shown in plates* from Tuczek, Voisin, Luys, and Mendel, and consist chiefly in changes in the cortex, which have been well described by Mendel:†

1. Increase of nuclei and new cell formation, some nuclei small, some large and with such varying reactions to coloring agents as to suggest dissimilarity of origin. The stellate or "spider" cells are increased in the upper layer of the cortex, where some may be normally found, and extend to lower layers, as is not the case in normal brains; they, too, may be several times the usual size and also push through the white substance to the ependyma of the ventricles. Proliferation of neuroglia or connective tissue, and in

^{*}Beiträge zur path. Anat. und zur Pathol. der Dementia Paralytica; Traité de la Paralysie Générale; Traité Clinique et Pratique des Maladies Mentales; Die progressive Paralyse der Irren. These plates were shown but cannot be reproduced.

[†]Berlin Congress, 1890; Berl. Klin. Wochenschrift, 1890, p. 927.

time sclerosis of the cortex, which involves the medullary substance also in a greater or less degree.

- 2. The larger blood-vessels may or may not be atheromatous; in the capillaries there is an increase of nuclei in the walls, with thickening and hyaloid degeneration.
- 3. In the nerve cells, the ganglion cells, granular and fatty degeneration of protoplasm, sclerosis, atrophy.
- 4. Atrophy and final disappearance of the nerve-fibres, not limited to the cortex and found in other brain diseases also; senile dementia and epilepsy for instance.
- 5. Focal lesions of the most various kinds, and degenerative changes in the spinal cord, the several forms of sclerosis and myelitis.

The post-syphilitic cases, with a previous history of syphilis not recent, those not only not benefited by iodides and mercury but usually debilitated and injured by them, may exhibit post mortem the same microscopic changes as those in which there is no ascertained evidence of syphilis. In paralytic dementia with a recent history of syphilis also and with marked indications of specific disease, endarteritis, gumma, meningitis, cranial ostitis and periostitis, neuritis, hemicrania, diplopia, where anti syphilitic remedies avail to produce such an amelioration of symptoms as to simulate a cure, at least for a time, the same diffuse cortical changes may be found at the autopsy-points which in making and in verifying diagnoses should be borne in mind, as well as the facts that there are degenerative changes in the brain secondary to gross syphilitic lesions which do not constitute general paralysis, and that the several types of general paralysis and other conditions of cerebral atrophy exhibit post mortem appearances which so gradually shade off into each other as to make the analogy very close.

In senile and chronic simple insanity, the atrophy of the nerve fibres is primary. In paralytic dementia, the essential process, according to Obersteiner, is a diffuse primary sclerosis of the cortex which leads to atrophy. It appears in the frontal lobes first. The sclerosis is preceded by a condition of irritation which seems to justify the expression, chronic peri-encephalitis, but the brain-coverings play only a secondary part. In very acute cases in which we are able to recognize an early stage in the diseased processes, we are struck with the quantity of lymphoid bodies which surround the blood-vessels throughout the whole brain.

These leucocytes probably migrate out of the blood and pass through the neuroglia or ground tissue of the cortex as "wandering cells" before being changed into stellate or "spider" cells. Perhaps also the stellate cells, normally present in the cortex, provide further material for proliferation. It is in the overgrowth of these cells belonging to the connective tissue that we have to look for the cause of the sclerosis. So soon as these cells occupy so much space as to surround and press upon the normal nervetissue cells, the latter atrophy. The result of this process is seen in old-standing cases, not only in the degenerated nerve cells (especially fatty pigmentous degeneration, sclerosis of the cells and enlargement of the peri-cellular spaces,) but also in the remarkable diminution in the quantity of medullated fibres. appearance of medullated fibres advances from the periphery inwards; so that, as a rule, the outermost layer of tangential fibres is most affected, whereas in senile atrophy the decrease in the number of fibres affects all the layers equally. The convolutions most constantly and distinctly affected are those of the frontal lobe, especially on the side of the great longitudinal fissure; next, those of the island of Reil, and the left inferior frontal convolution. The other frontal convolutions, the gyrus fornicatus, the paracentral, superior temporal and ascending parietal convolutions are often diseased to a similar extent. All other parts of the cortex are, it is supposed, affected in a less degree only; or in the case of the occipital lobe, it may be, not at all. There may be a decrease in the number of fibres in other conditions beside paralytic dementia; in senile atrophy and long standing epilepsy for example. The changes in the structure of the cerebral cortex to be seen in paralytic dementia assume many forms, however: hence the descriptions of pathologists differ widely one from another.* Can it be that, as there are so many clinical forms of general paralysis, there may be also at least two from a pathological point of view, and that we can so reconcile the views of Wernicke and Tuczek, that it is primarily a parenchymatous disease of the cortex, with Obersteiner's and Mendel's, that it is interstitial with secondary atrophy of the nerve elements?

While it cannot be said that any particular morbid changes in the brain are singly characteristic of general paralysis, inasmuch as they appear in other degenerative cerebral diseases, yet the whole group involving chiefly its anterior and antero-lateral por-

^{*}Obersteiner, Hill's translation, and Tuczek.

tions, the psychic and the psycho-motor tract, and resulting in such marked final atrophy, is found in no other condition. Indeed, the trained pathologist has been able to diagnosticate as general paralysis after death by suicide, what had been supposed during life to be melancholia, distinct motor symptoms not having been observed. The fact is interesting that healthy and diseased cells and nerve fibres are seen side by side, so that the early symptoms do not constitute a paralysis as in other organic brain diseases, but a cortical ataxia; a motor intelligence disturbance, as Obersteiner well says, on the one hand, and on the psychic side mental failure due to defective association of ideas through greater or less affection of the associations-fibres in the cortex. The morbid changes in general paralysis are more extensive than in any other mental disease and have been more carefully studied, but we can scarcely vet be said to know much about their relations to abnormal mental manifestations except in the impaired function of the associations-fibres and so far as the final atrophy explains the complete intellectual and physical decay.

After this somewhat long prelude, which really seemed necessary, in order to define clearly what is meant by the term general paralysis, I will not detain you with a discussion of the difficulties in the diagnosis of the disease in its obscure though pronounced forms, including the exclusion of cerebral tumors of the anterior lobes; cerebral diffuse sclerosis; intracranial hemorrhage, embolism or thrombosis; phlebitis of the venous sinuses; cerebral syphilis; premature senile decay and primary atrophy of the brain, which may both be attended with epileptiform or apoplectiform convulsions; acute mania with extravagant delusions; primary dementia; alcoholic dementia or mania; chronic alcoholism; the atrophy and degeneration of the brain in one form of primary insanity; symptoms of brain-failure in chronic nephritis or from impaired circulation in heart disease; lead poisoning; bromidism. All these conditions may simulate general paralysis, and may make the diagnosis difficult or for a while impossible. The grouping of the symptoms, no one of which may at the time be typical, and the symmetrical character of the mental and physical deterioration, are the determining points in an obscure case.

In the study of the early stage of general paralysis I will divide it into, first, a prodromal and, second, a later or initial period.

The symptoms of the prodromal stage, so to speak, are vague and indeterminate, very much resembling those of cerebral asthenia from any cause, but usually without the so-called neurotic element. Now and then, but rarely, associated with it we see quickened wits, blunted sense and moral sense, with slight exbilaration. This stage is thought by Meynert to depend upon cerebral vascular disturbances which are functional and curable, and to precede the slight organic changes which characterize the next or initial stage. I think that as a rule the subjective symptoms are so much less in general paralysis than in cerebral neurasthenia that medical treatment is not thought by the family to be important, and the patient regards himself perhaps as only tired; so that it is for the functional cases, for the most part, that the physician is consulted, or for such symptoms as depend upon definite ascertainable conditions of disease. In functional disorders the cerebral vaso-motor disturbances are more constant and pronounced: they are conspicuously observed and dwelt upon by the patient himself, while the prodromal indications of general paralysis seem trivial or are unobserved by him and attract the attention, if of any one, of his close associates. It is chiefly by exclusion, if at all, that the prodromal period of general paralysis can be detected or at least suspected. After the diagnosis has been narrowed to a question between general paralysis and cerebral exhaustion, a previous history of syphilis and the age of the patient are most important factors. If under the age of thirty, general paralysis except as the result of comparatively recent syphilis, can as a rule be excluded. If over fifty-five some other condition than general paralysis is more probable provided there has been no syphilis, and Mendel's estimate seems to me correct, that it is an antecedent in at least seventy-five per cent. of all cases.

I have usually found when I had opportunity to investigate, that in the history of general paralysis the prodromal period, although not at the time considered important as such, is remembered as having existed at its beginning. But of the very large number of cases which I have seen in the last ten years presenting symptoms of cerebral asthenia or general neurasthenia, I have not found even in the many who neglected treatment a single case of general paralysis follow; and in the three or four cases when I ventured to provisionally make that diagnosis, either I was mistaken or a recovery followed with very little treatment but rest. Of numerous cases with the symptoms of cerebral hyperæmia which are so common in brain-tire from over-strain, I have not seen any develop into general paralysis, although they are found later in the disease;

nor have I known a case of general paralysis with such antecedents. In the prodromal period the best that we can do, until our means of diagnosis vastly improve, is to indicate a certain danger signal by which to warn our patients.

When to vaso motor indications, whether slight or not, symmetrical motor symptoms are added, the initial stage begins, and its appearance is most insidious. There is a general muscular weakness, with some failure in concentration and adjusting skill. The occasional lapses from a former standard of living, of self respect, and perhaps decency or honor, if they occur, are regarded as ethical rather than requiring medical advice. The inexplicable change in personality, in character and conduct, is simply not explained. The diminished physical power or endurance is thought fatigue. The muscular incoordination and embarrassment of speech are so slight as to rarely admit of detection except by an expert. These symptoms may be masked by others which excite more interest or attention, but in my experience have seldom failed even in cases in which mania or exhilaration was early prominent. In the case of a gentleman in the prime of life, his partners in business observed that his portion of the work was not as well done as usual. Six months later his wife saw an entire change in his personal treatment of her, in that he had become grossly inconsiderate; later still, his near friends found that he had become less polite in his manners at the table, and quite selfish and self-absorbed. Then the children noticed that he was indifferent to them, and often unreasonable. At last the family physician was consulted. No serious trouble was suspected and the patient was sent on a personally conducted excursion, which he left without any obvious or stated reason, walking a number of miles to return home by another route. When seen by me, he put his feet in the chair in talking, whistled occasionally, and in such little ways acted in a manner stated by his family to be quite unlike himself. He was indifferent and apathetic. Several of his letters were shown me. and his writing was without conspicuous fault. His speech showed unmistakable deliberation and slight hesitation, which his family did not notice until their attention was called to it. He became angry when opposed or restrained, resisted, and soon became pliant and easily managed. He had shown marked inattention to his business; his conversation was often inconsequent; no one could tell where he went when he left the house, and he often wanted to go without an expressed purpose. There was no delusion,

hallucination, or illusion discovered. No distinctive muscular tremor or ataxia was apparent by any of the usual methods of examination. He was easily fatigued in mind and body.

Cases have been described where a violent epileptiform or apoplectiform seizure was the first recognized symptom of general paralysis; but, in my experience, such attacks, like the unexpected and often at the time unexplained offences against decency or the law, have been preceded for a considerable length of time by the initial indications described. So, also, in some of the cases where a violent shock or an accident appeared to be the beginning the real beginning was much earlier. Indeed, symmetrical impairment, mental and physical, if slight, is most difficult to detect or describe, and may entirely deceive the physician, if he trusts to ordinary methods of examination. A patient even quite far along in the initial stage of general paralysis was erroneously made the subject of a clinical lecture, as illustrating physical and no mental signs of general paralysis, although by a minute examination of his conduct and character he showed unmistakable evidences of brain failure. Another went almost directly from the consultation-room with a certificate that he was of sound mind, to make some most unwise and embarrassing contracts, to which the other party, under the circumstances, did not hold him responsible.

Meynert's theory is that preceding and causing the diffuse cortical encephalitis there is a functional vaso-motor disorder which he considers curable. He states that the organic changes are marked, in point of time, by the patients losing their power to realize their condition, which is not supported by experience. But the question whether the diagnosis of general paralysis can be made when the organic changes begin is still under judgment. I do not know an instance where it has been successful. Indeed, it is probably rare that a physician has been consulted so early. The absence of subjective symptoms and the lack of those naturally observed by others, as compared with the various forms of neurasthenia, for instance, are quite deceptive. But the change in personal traits or character, and the peculiar apathetic, indifferent, unconscious quality of the mental impairment, in typical and uncomplicated cases, are unlike anything else. There is no doubt, however, that general paralysis can be diagnosticated far oftener than not, for a considerable length of time before what is usual now.

It is quite true that the signs of mental impairment may be ascertained only by a painstaking examination, that the patient may bear cross-questioning without manifesting any degree of loss of those finer qualities of brain, psychic and motor, coming last in a highly organized and developed civilization, although it may at the same time be detected by methods which may require several days of close attention to the patient and minute observation of his character and conduct. The very essence and nature of general paralysis imply and involve mental symptoms in some degree and motor impairment, however slight, even if only judged by the test of a minute examination of what the patient can do and how well or ill he does it. The symptoms may be recognized in a large proportion of cases, and at least suspected in most, certainly in those persons whose muscles and brains are so highly organized, who are so trained and cultivated that slight changes in the highest brain centres produce distinct departure from their normal character and quality of mind. In an orchestral leader, for instance, the mental and fine mechanical operations are so complex and of such high order that the least fault is detected; in professional and business men a less degree of impairment is recognizable than in mechanics; in routine employments without much thought or nice muscular effort, a large degree of deterioration may be unnoticed. In day laborers an early diagnosis is simply impossible.

The initial signs of general paralysis are of brain failure. If, for instance, a strong healthy man, in or near the prime of life, distinctly not of the "nervous," neurotic, or neurasthenic type, shows some loss of interest in his affairs, or impaired faculty of attending to them; if he becomes varyingly absent-minded, heedless, indifferent, negligent, apathetic, inconsiderate, and although able to follow his routine duties, his ability to take up new work is diminished; if he can less well command mental attention and concentration, conception, perception, reflection, judgment; if there is an unwonted lack of initiative, and if exertion causes unusual mental and physical fatigue; if the emotions are intensified and easily change, or are excited readily from trifling causes; if the sexual instinct is not reasonably controlled; if the finer feelings are blunted; if the person in question regards with a placid apathy his own acts of indifference and irritability and their consequences, and especially if at times he sees himself in his true light and suddenly fails again to do so; if symptoms of cerebral vaso-motor disturbance are noticed. This group of symptoms seems very striking, but may be compatible with the performance

of usual duties. They may require for their detection careful and prolonged observation of the patient, and painstaking interrogation of his family and friends. They are recognized, perhaps, as much from the peculiar quality of the mental impairment, difficult to describe, as from its degree. The physical symptoms may be so slight as not to be appreciated for a long time, except as an unusual sense of weariness on exertion, which may also show itself after long talking or reading in a peculiar slight failure in putting words and ideas and sentences together. Commonly there is loss of flesh—slight, moderate or excessive.

Very great or dispreportionate loss of physical power, especially in the legs, I have found to be due to a complicating peripheral neuritis. There may be no indication from the eyes or the reflexes so early; the muscular tremor is, as a rule, less than in functional nervous disorders; the speech may be not noticeably affected to the family and only like that of a person with lips chilled by the frost or slightly under the influence of wine. It may be necessary to have the patient read or copy several pages, or be under close observation for some time before the defect in the use of the muscles is clearly manifested. His impaired ability to adjust himself to his environment may be detected only by testing him in a new place or occupying him in unaccustomed ways. The distinguishing feature of this stage of general paralysis is the fact that the change observed consists in a symmetrical deterioration which is distinctly motor as well as psychic, and, as in all diseases in which a vaso-motor element is prominent, varies from time to time, and may disappear, temporarily at least, by complete rest, just as excitement, fatigue, alcohol and vaso-motor stimulants bring out the symptoms more markedly. The clinical history of the mitial period is so lacking in sharp definition and clear description, in contrast to the striking picture of typical general paralysis in its advanced stage, that it is all the more easily mistaken for something else.

The mistakes which I have made in attempting to diagnosticate general paralysis in the initial stage are, first, in cases which ended in recovery, and which I now regard as anomalous simple primary dementia of mild degree, following protracted mental suffering and long physical strain; and, second, with such a history as the following:

Several years ago I was consulted with regard to a gentleman forty-two years of age, with antecedents reported good, except

that his mother had been in an asylum over thirty years with chronic delusional insanity. His ancestry was largely of professional families. His early health had been good; no history of syphilis. He was a college graduate, scholarly and refined, a man of high standards of morality, leading a professional life. Soon after his marriage he had a delusion of suspicion which persisted between two and three years, and then disappeared without treatment or change in his habits or manner of life. If there was any mental impairment or morbid condition at any time in the next ten years it was not observed. His habits of life continued, as previously, without fault. He was temperate in everything, only excepting his work, in which he was immoderate; and his life was always full of worry. After having apparently remained well for ten years, he became interested in Salvini's acting, thought that he had discovered in King Lear a new meaning, that it was a communistic play; and he wrote much about it, which he offered for publication, and finally threw into the fire after it was refused. He then abandoned that idea. He was working hard, but his friends and family and professional associates regarded him as well, except that on occasions he was irritable, unreasonable and contradictory, or not inclined to fully perform his appropriate duties. Two months later he awoke in the night with his old delusion of his wife's infidelity. He insisted upon her acknowledging it, and asked the suspected man to the house to confront her. He then for the first time felt so confused that he could not readily work, and was persuaded to take a vacation, from which he returned in two weeks seeming pretty well; but his delusion reappeared. He also became sleepless. His delusions rapidly expanded, and he thought that some pellets given him by a friend to produce sleep had poisoned him, also that the Order of Masonry were trying to kill him on the ground that he had discovered their secrets. He rushed out of the house about bedtime and spent the night going up and down in the horse cars. He evidently was very much afraid of his life, and especially of two or three friends who, as he thought, meant to kill him. In the early morning he did not dare to go home, but sent for his wife and children to join him to go to the farm where he had spent his vacation. During the day he was sent by a judge, before whom he seemed sane, to the hospital for observation. The next day his father appeared on the scene and took him to the farm, where he soon appeared to lose his delusions of suspicion and persecution. He

became quiet and orderly, but apprehensive as to his own health, thinking that he had a serious illness which would prove fatal, and, as was reported true, that his speech was not quite natural. He seemed to have lost energy and ambition, and his sexual power was diminished, but no delusion was detected. Late in the summer he made a visit to a relative's family, and while there and seeming to them sane, he went in his nightdress to the room of an unmarried lady to have intercourse with her. He did the same thing again the following winter, but both times behaved well during the rest of the visit. He felt dreadfully about these acts after they had been committed, said it was selfish, but soon appeared to either forget them or be indifferent about them. He appeared quite unabashed before these ladies afterwards. His wife's only explanation from him was that it seemed as if he ought to help it.

All of the subsequent winter he spent on the farm with his wife and children. He was idle, indifferent, apathetic and listless, but friends who saw him, among whom was a physician, thought that otherwise he appeared as well as ever. His loss of sexual vigor became complete and he so remained, but to his wife there were such occasional attempts at sexual relations that she had to refuse to drive in solitary places with him, and was compelled to keep her chamber door locked day or night, if alone. He seemed soon to forget or to be indifferent to these acts. In April, on account of these attempts, of whatever nature they were, becoming less controlled and involving possible exposure, she was obliged to remain much apart from him. Then he for the first time became violent, and once broke her door open, so that she went away to her parents' home. Once, in the following summer while visiting him, she went out to drive with him, and the same attempt was made in the buggy. As always happened at such times, he seemed unable to control himself for a few moments only, and then he was at once gentlemanly again, conducting himself with propriety. He also showed the same propensity or impulse to the wife and daughters of the farmer at intervals, so that they had to keep out of his way. In June of that summer his family thought he could be trusted to go to a picnic, when he made the same attempt upon a young lady belonging to one of the leading families, after persuading her to take a walk with him to an isolated place. At the very next meal he talked fluently and seemed quite unabashed. He also repeated the attempt upon

an unmarried young lady, sister of his own sister's husband, while visiting in his house. His wife tried to live with him again, but these attempts became so unbearable that the following winter she remained entirely apart from him, as she did also the next summer, leaving their children and his father with him.

He passed the winter fairly well, adult women being cautioned or careful not to be with him. His sexual power was now altogether, or at least apparently so, gone. He had no delusions, so far as could be detected by his family, which included a physician, except possibly what I learned later, that when pushed for an excuse he had said to his wife that he thought he should regain his sexual power if he could have intercourse with a virgin; but that was not his usual defence, as it was evidently not the controlling motive, for his attempts were directed to married much oftener than to unmarried women. A distinguished physician examined him and was reported to have found nothing abnormal except that the patient was inclined to be rather indifferent, silent and gloomy. But it was also stated that subsequently at a medical dinner he observed some embarrassment of speech. During the year now just past Mr. — had been reticent, selfish and obstinate; he would not help any one, even his father, in any of the ordinary duties of the farm or in any of the relations of life. He lay in a hammock, or about somewhere, reading books usually of real worth. As the spring advanced, he inclined for the first time to take hold of farm work. He ordered trees, shrubbery and plants, which were quite superfluous, and for which he could not pay in moderate quantity, much less in the extravagant numbers in which he had directed them to be sent. Instead of devoting himself to useful work his idea was to excessively ornament the farm. In the same way, he was extravagant in ordering things for his table and his ordinary life. He took up smoking, and bought, but did not pay for, a large quantity of cigars which he could not use.

In June he spent a few days with a classmate in his college town. He went to his class dinner, at which he made a speech, and attended the commencement exercises. He passed through for three days the excitement of meeting old friends without showing to anybody any abnormal indications except that he was on a lowered plane mentally and physically. Two New York physicians were among those who were thrown in with him in those few days, and knowing his history in a general way, they

tried, but in vain, to find some further evidence of mental disorder. Upon his return to the farm, his sexual attempts became annoying again. His children still remained with him, as did his father, a physician. In September he made one of his attempts upon his own daughter, only nine years old, and was removed from her by force, the child's cries having brought her nurse to the rescue. He was then sent to an insane asylum, where he remained only one day, his father yielding to his wish to be taken away. He felt very badly about this, and only said, however, in explanation or extenuation of his act, that it seemed as though he ought to help it. About this time he was examined by a distinguished expert in mental diseases, who found nothing in addition to what has been described. For some months more such care was used that there was no further occurrence of these distressing acts. He became scrupulously courteous and well-behaved to women. A relative in professional life, after spending twenty-four hours with him, wrote, "a sort of docility and lack of self-assertion is about all I think that one would notice peculiar in his behavior."

After having heard this history, I went to see the patient the following December, with a feeling of confidence that I should find unequivocal evidence of mental disease. I spent five hours with him, and, much to my chagrin, could detect nothing of the sort. He was a well-developed man, in excellent physical health. By the usual tests, his internal organs seemed healthy. The opthalmoscope showed a normal fundus of the eye, and there was no positive evidence of distinct motor impairment, localized or general. Reflexes sluggish, but not clearly abnormal. His father had given up his professional work, upon which he depended, to devote himself to this son. The wife and children of the patient were living with the wife's family and at their expense. But he, a man naturally of sensitive nature, seemed to care nothing about that. He lived a life of indolence and selfindulgence. He declined to discuss his sexual acts with me, and was disposed to ignore them. His feeling was of comfort and self-satisfied content. He was not ready to enter into general conversation at the dinner table, but replied fairly well in a personal talk. After my five hours' interview, I had simply found a man who seemed to have a moderate degree of symmetrical mental impairment, indifferent, with little initiative and almost no energy, whose sexual power and desire were gone, although only forty-two. There was a marked change in his whole character

and conduct. I could not get at any delusion. His speech was deliberate, slow, and without his normal, sharp, closely-cut articulation; in fact, what I had up to that time considered quite suggestive, if not characteristic, of the initial stage of general paralysis. The symptoms of any other form of insanity seemed wanting. His sexual acts, so regardless of time and place and proprieties, coming at such irregular, often long, intervals, so unexpected when they came and so quickly under control, seemed inexplicable, except as the vaso-motor disturbances or congestive attacks so characteristic, for instance, of general paralysis, the crisis, so to speak, being soon completely over. On such grounds and from lack of further evidence, it seemed not altogether consistent that these acts should be due to persistently concealed delusions. The gait was slovenly, and on turning quickly or going down stairs, a trifle careful and deliberate. He had gained flesh. He was easily fatigued. His handwriting had deteriorated, but possibly from lack of practice. His face had strikingly lost in expression. His memory failed him, especially in little things, although he remembered long-past events, many of them well enough. This was the condition in 1885, when he repeatedly told his wife that his belief of her infidelity had ceased and acted as if he spoke the truth.

The patient continued more than a year longer in a similar condition, idling, reading, indifferent to his useless life, careless of being such a burden to his family, but slowly failing. He spent the following summer at the sea-shore. The extraordinary sexual manifestations had ceased, and unsystematized delusions made their appearance, mostly of personal exaltation or of extravagant type. These have increased in number and variety. Hallucinations of sight and hearing have become frequent. Dementia has been progressive. There was a persistent sense of happiness with expansive delusions three years ago, and it became necessary for him to go to an asylum, which he considered an enormous ship, magnificently fitted up, of which he was the captain. There were no motor symptoms sufficient to justify a diagnosis of general paralysis.

At the asylum he recognized me when I had not seen him for over two years. He had become enough demented to talk freely. His self-satisfaction was constant. He thought himself King of the Huns and too many million years old to have his age computed; that he was surrounded by fine ladies of high rank,

who attended to his personal wants; that he had slept thirty million years with only eleven times awakening. He remembered his family, but thought them not related to him. He recollected some, not all, of his attempts to have intercourse with ladies, but was incorrect in stating the facts in the several cases. He remembered a poem which he had composed before his illness. He talked quite freely and explained his sexual attempts on several grounds, all expansive and delusional, but not mentioning his previously stated reason. One was that he was to become King of England. He was emotional, mostly pleased and happy, but often broke out momentarily in angry swearing at unpleasant hallucinations of hearing. He readily changed from one subject to another, even in the middle of a sentence. His pupillary and right knee reflexes seemed not abnormal; left knee-jerk almost gone. His speech was slightly drawling and became more so after a quarter of an hour's talking; nothing distinctive. A short time previously, he had had some difficulty in articulating m's and n's. There was a marked tremor of the tongue and hands, but he wrote without any definite fault.

At my first interview I thought this man to be probably in the initial stage of general paralysis, belonging to Meynert's seventh class, that is, secondary to paranoia. The symmetrical general atrophy of the brain in his slowly advancing dementia had produced symptoms, psychic and motor, so like the initial stage of general paralysis that looking back upon the case now, I do not see how to make a differential diagnosis in similar cases in the future except by reserving one's opinion for further evidence. The arguments against one diagnosis or another would be sufficient to make an essay in themselves and involve many interesting points, in the consideration of which I will not further tax your patience.

To recapitulate, the essential points in this case are:

1. A period of two years of a delusion of suspicion in a strong healthy man twenty-eight years old, without history of syphilis or of excesses except in work, meanwhile his usual occupation not being interrupted.

2. An apparent spontaneous recovery and then a period of ten years of seeming health, mentally and physically, but always overwork and inordinate worry.

3. Return of the previous delusion, with also delusions of persecution attended with great fear and excitement.

- 4. Apparent disappearance of delusions in a short time under the restful and healthful influences of farm life.
- 5. Three years of dullness and apathy, during which there were the repeated sexual attempts as described, a mental state like that in the initial stage or during an incomplete remission in general paralysis, motor symptoms not distinctive but suggestive, absence of the old delusions, possibly concealment of new delusions.
- 6. Reappearance of delusions, but mostly new and of an expansive character, and a mental condition as of the beginning of an ill-defined terminal dementia of obscure type, while the peculiar sexual manifestations had (since 1886) ceased.

If these sexual acts were of an epileptic nature, they would, after lasting three years, hardly have ceased in the five or six years of further progress in the disease. Was my case one of anomalous delusional insanity, in which the delusions spontaneously disappeared for ten years, and the patient recovered to relapse at the end of that time, with again another disappearance of delusions for three years, an arrest, so to speak, with mental impairment, and vaso motor disturbances like those early in general paralysis. to finally settle down into the dementia which may terminate in that general condition which ends several forms of chronic insanity? Is it possible that delusions could have been concealed for three years? Was there a general paralysis of Meynert's seventh class, that is, after paranoia, which was arrested by the absolute quiet and healthful influences of farm-life, to sometime perhaps become active again or to assume a vague form of what will prove to be a terminal dementia of slow progress and illdefined type? As the case now stands, chronic delusional insanity seems the only tenable diagnosis, and delusions were probably concealed during the three years of quiescence, a fact which suggests the similar question for the ten years of seeming health. The transformation of delusions, however, was like that which Krafft-Ebing has pointed out as occurring in general paralysis and as being quite different from the changes characteristic of chronic delusional insanity. So far as my knowledge and experience go, the case is unique, and I shall continue to await the results of the autopsy with great interest.

As regards prognosis in general paralysis I shall condense to the utmost, as I have already occupied too much time. In the prodromal stage, theoretically, the disease should be curable like the very beginning or prodromal period, if I may use the term, of pulmonary consumption or interstitial nephritis. But experience proves nothing in either case until we can be certain of our diagnosis so early. In the initial period of four of my cases, so far along in that stage as to make the diagnosis unquestioned, I think, in which the disease has been at least arrested two to four years, there has been no cure in the sense of restoration to previous mental strength, although a resumption of the usual occupation. There is, however, a strong opinion led by Voisin ir France and Meynert among the Germans that general paralysis can now be recognized and cured in its early stage. It seems to be at least true that more or less complete arrest of the disease may be favored by the recognition of its early stage, and by treatment which practically amounts to putting the brain in a splint, as it were.

I am surprised at the number of cases of general paralysis reported cured after such pronounced symptoms as to render asylum treatment necessary. I had intended an analysis of these cases. but it would carry me too far and may be well left to some future investigator. My examinations of the reports and of the subsequent histories of such patients indicate doubts as to accuracy of diagnosis, the occurrence of recurring attacks, remissions lasting a varying number of years, an insufficient length of time for observation to differentiate between a remission and a cure, or finally only a partial recovery. Probably the remarkable case reported in detail by Wendt, is unique of a physician six years and a half in an iusane asylum with general paralysis after three years of the early symptoms, who at the time of Wendt's report, December, 1888, had virtually recovered or who had a remission of thirteen years, beginning in 1875, three years and a half before he left the asylum. He had resumed his professional practice for nine years and had for seven years held his former position of Kreiswundartz, although it is not maintained that his full mental vigor had been restored. Wendt had first seen this case in 1875 and had not personally found evidence to establish the diagnosis of general paralysis.* Tuczek's case,† like others, of apparent recovery and resumption of professional work for five years is within the range of time of reported recoveries, which later proved to be remissions.

In the large proportion of cases with a previous specific history

^{*}Allg. Zeitsch, f. Psych. 1889, I. 77.

Dementia Paralytica, Hirschwald, Berlin, 1884.

my cases satisfy me that no one of the methods of treatment for the primary chancre and for the constitutional symptoms of syphilis secures immunity against cerebral syphilis or general paralysis later, even if in the hands of the most skilled specialist. In no case of syphilis, as I read the evidence, however treated, can we say that the patient is cured, so far as possible late manifestations in the brain and nervous system are concerned, at least not until after a long term of years. How far specific treatment in syphilis may diminish the chances of subsequent paralytic dementia or modifies our prognosis in its prodromal and initial stages, is a question which there are now no better means of determining than the character of the relations of the one disease to the other. When gross lesions of intracranial syphilis appear coincidently with the symptoms of the initial or prodromal period of general paralvsis, prolonged treatment with mercury and the iodides at least very much postpones the fatal termination and may give years of usefulness. That it cures in the proper sense of the word is still doubtful.

My object in this paper has been to stimulate discussion rather than to exhaust any portion of my subject, even if that were possible. Your criticisms will fill many of the gaps which I have left, just as future investigations will clear up many points now obscure, and for the study of which our asylums, with their diverse classes and races of patients, offer especial facilities.

# TRAUMATIC HYSTERIA FROM RAILROAD INJURY.*

BY DR. J. B. ANDREWS, Superintendent Buffalo State Hospital.

A man aged 33, married, three children, of good habits, with no hereditary history of insanity or nervous disease, while employed as a freight brakeman received an injury to the head and spine in the following manner: In attempting to brake the car the wheel slipped off the shaft and the patient was thrown down between the cars on the drawhead, striking upon his back and upon the right side of his face and head. In a moment he fell from the bumper to the ground between the tracks. He reached up and seized upon some iron supports on the under side of the car, and in this position was dragged along until the train stopped. He was helped up by the conductor and thus supported walked back to the caboose, into which he was assisted and laid upon a couch. When the train reached the depot he was placed in a carriage and driven home and soon after this passed into a condition of unconsciousness, in which he remained for some hours. On regaining consciousness he became noisy, talkative and violent. A few days later his right leg was said to have become paralyzed and remained so for three weeks. The accident occurred on the 19th of July, 1889 and on the 23d of August the patient was admitted to the Buffalo State Hospital. He came with his hands and feet tied, and with a history of violent acute mania, with delusions of fear, asserting that his friend and attendants were his enemies and about to inflict injury upon him, and under the influence of these delusions he was threatening and violent. At night he was said to have been noisy and to have required the united efforts of several attendants to control him. He also suffered from hallucinations of sight. His bowels were obstinately constipated and at times there was said to be difficulty in voiding his urine. There were no marks or sears on any part of his body as the result of his injury and only some tenderness over the second and third lumbar vertebræ. Such is the condensed history of his condition at home during the month after the injury.

^{*}Read at the forty-fifth annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, held at Washington, D. C., April 28-May 1, 1891.

On admission the restraint was removed. The patient seemed exhausted and mentally dull and stupid. Examination revealed only some sensitiveness to pressure over the spine extending from the lower dorsal to the fourth lumbar vertebræ. There was no disorder of the function of the bowels or bladder: there was however a disturbance of gait not amounting to paralysis, a complaint of general weakness and at times a sense of dizziness. Under tonics and the use of the continuous current of electricity he steadily improved in both mental and physical condition, and in a few weeks regained his normal mental state. At this time, the importunities of his friends led to his discharge from the institution, though contrary to my judgment and advice, as he had not recovered his usual strength, and some of the changes in motility and sensation still continued. He went home in October, 1889, and was returned to the Hospital in June, 1890, with a history of having been unable to work and of having suffered from several attacks of unconsciousness marked by muscular tremors. The last one occurred two days before admission and was said to have been followed by great violence, in which he tore up his clothing, destroyed the furniture of his room and passed beyond control. When admitted he was profoundly under the influence of some hypnotic and was taken to the ward in a roller chair and put to bed. He remained in this state until visited by a physician. An attempt to arouse him by pinching and irritating the skin proved ineffectual, but he struggled against irritation of the conjunctivæ and under super-orbital pressure was aroused, answered questions and when requested protruded his tongue. On being left alone he passed again into the same state, but in the morning was fully aroused, conversed freely and expressed surprise at finding himself again at the hospital; said he knew nothing about his removal from home, but that he had had another of his violent spells and on this account had been returned. In describing these disturbed periods while at home he professed entire unconsciousness, but at the same time gave in detail the manner in which the physicians examined him-said he felt them pricking and pinching his limbs. He also claimed that there was complete loss of power in the right leg and arm, but also said the doctors had great difficulty in extending or flexing them.

Physical examination in the hospital showed a normal temperature and pulse, normal respiratory murmurs and heart sounds. Patellar reflexes were also normal; there was no ankle clonus; the pupils reacted normally to light; left eye was astigmatic; the field of vision in both eyes seemed somewhat restricted; hearing quite deficient, the tick of a watch being heard at a distance of five inches only in either ear; tongue was tremulous and deviated to the right. Electrical reaction was normal. A marked difference existed in the size of the limbs, the left calf being fifteen three-fourth inches, the right calf fifteen one-eighth inches; the left thigh twenty-three one-half inches and the right twenty-three inches.

As regards sensation, different experiments did not give uniform results, but there was an evident loss of normal sensibility in both the right arm and leg. There was tenderness on pressure over the spine from the middle of the scapular to the lower lumbar region, especially marked in the dorsal region; which did not, however, extend on either side beyond the exit of the spinal nerves. There was a change in gait which may best be described as shuffling and clumsy, but this was more marked and seemed exaggerated when attention was called to it. Patient improved steadily for about three weeks under tonics. At this time when employed in the dining room he complained of pain in the head and dizziness; threw up his arms, staggered and seemed about to fall. He was supported to a chair and then placed in bed. The physician summoned found him in an apparently unconscious condition, with tremors of both extremities, more marked on the right side. There was also a convulsive movement of the head and neck. He would shake his head violently, partly raise himself in bed and stare wildly around.

Irritation of the skin produced no effect, but pressure on the super orbital nerve put an end to the tremor and convulsive movement and the patient sat up and protruded his tongue without deviation. He relapsed into the former condition, but soon regained consciousness, with, however, a dazed appearance. The next day he had another attack of a similar kind.

On the third day he was seen by Dr. J. W. Putnam of Buffalo, who upon examination found that at times the tongue deviated to the right and again was protruded in the median line; that there was a diminution of sensibility in the right arm and leg and some tremor; that the reflexes were normal; that there was the same defect in hearing as before noted and the same limitation of the field of vision. He also found him readily susceptible to suggestion and easily hypnotized him. In this condition he produced a transfer of loss of sensation and of muscular tremor from the

right to the left side by suggestion. The patient was entirely under control and carried out all suggestions made to him. Among these was an order to sneeze after he had regained full consciousness.

There was a notable improvement following the hypnotic state, and during the next five days there were only slight attacks of dizziness, and the patient expressed himself as much benefited by the treatment.

At this time Dr. Putnam again visited and by use of a large magnet again transferred the local anæsthesia from the right to the left side. The patient was then hypnotized and was told that he had no loss of sensation, that he could walk without disturbance of gait, that he should not have any more pain in his back. He assumed various positions as directed and experienced no pain on pressure over the sensitive spots. He was ordered not to put on the corset, which he had been wearing for a long time, and was then brought out from under the hypnotic state. Everything was done as suggested. He did not put on the corset, though it lay on the table in full view. He walked erect; sensation was normal over the whole surface, and there was no pain in the back even when vigorously punched.

The next note was made after six days, to the effect that he had not worn the corset and there was a steady improvement in all respects—no dizziness, no pain, no anæsthesia. He moved a heavy piece of iron above his head with both hands, and began to do all kinds of work. He was again hypnotized and it was suggested that he be entirely well. This completed the treatment by the hypnotizer. A month later he was assisting the office boy, which brought him under constant observation of the physicians, running up and down stairs, carrying trunks and packages and doing anything that came to hand, and all with perfect ease and without a symptom of his former trouble. He regained his normal state of flesh and apparent strength and seemed to have fully recovered. After two weeks more, or about two months from the beginning of the treatment, he was allowed to go home and discharged as recovered from his mental troubles.

A week after his return he was seen by Dr. E. B. Angell of Rochester, who was called in by his wife on account of a poor spell, as she called it. He was talking somewhat incoherently, but was quiet and free from any disturbance. Examination revealed stinging pain in right forehead with soreness, roaring in the ears,

eyes injected and sensitive to light. Reading caused headache and confusion of mind, though vision was good. There were no anæsthesia or spinal symptoms. Treatment for cerebral congestion with antipyrin proved efficient and patient regained normal condition.

In about three months the doctor was again summoned and found the patient in a condition resembling the somnambulistic stage of hypnotism, eyes staring and face suffused, eye-balls injected and insensitive. He did not know his wife or recognize his physician, but called him Dr. Hurd of the Hospital; answered questions correctly but in a dazed manner. He had slept but little the previous night and had insisted on getting up and dressing long before morning. The doctor put him to sleep by hypnotism and after a few minutes he awakened and was quite natural, though he knew nothing of his previous condition. In a few moments he was off again. This process was repeated two or three times, when he came out all right and so remained. Soon after this he settled with the railroad company, receiving \$1,200 and the promise of work on the road.

He went on the fast mail and stood the severe test of 300 miles a day without any head symptoms, but complained of some spinal pain, which induced him to give up the work assigned.

I have a letter from his physician, Dr. Angell, in which he reports him on the last of March as being perfectly well and ready for work on the road; and since this, in June, that he continues well.

The question of nervous injury resulting from traumatism has within a few years attracted much attention from specialists. Erichsen's work on Spinal Concussion was for a long time considered the standard and his explanation quite generally received, but the large and increasing number of railroad injuries has brought to the attention of the profession forms of nerve injuries which were not, and could not be placed under the classical term of spinal concussion or railway spine. Other terms and theories have been formulated to include these conditions, and we have the comprehensive one of "traumatic neuroses," which is certainly broad enough to include all possible nervous derangements produced by injury. The tendency of modern surgery, however, under the lead of neurologists, is to a still further division of these conditions according to the actually existing pathological states discovered in the individual case. These cases do not often fall under the

observation of the alienists in institutions, as the mental symptoms do not usually require the special treatment found therein. The case before us is the only one of a like kind it has been my good fortune to observe, and that it is correctly named "Traumatic Hysteria" I leave to your judgment.

The marks of this disease are plainly detected in the peculiar form of mental disturbance and of the changes in sensation and motion. Any doubt as to the correctness of the diagnosis must be removed by the success of the form of treatment adopted. The case was free from the suspicion of simulation, and it did not enter the arena of medico-legal strife, as the question of damage did not receive attention till after the recovery of the patient, and the settlement was made without recourse to the Courts.

#### THE NEW DEPARTURE IN MASSACHUSETTS.*

BY DR. A. R. MOULTON, Boston, Mass.

One conversant with the history of hospital and asylum provision for the insane cannot have failed to note how fully circumstances and local conditions have moulded methods of treatment and modified or controlled results.

Numerous members of this society have been such accurate historians and painstaking statisticians, that it is unnecessary for me to review the successive steps which have carried the work of our specialty to its present altitude. I wish to remark, however, that the insane have, with hardly an exception, been cared for in jails and alms-houses previous to the erection of the first asylum in a given commonwealth, that the initial steps taken for the relief of such unfortunates have been to remove them from custody, and that the neglect of any community to make suitable asylum provision is equivalent to denying the insane the justice which their helplessness demands.

I am not aware that any commonwealth has been sufficiently philanthropic, liberal or far-sighted to provide primarily for the cure of acute insanity, where patients might be treated and recover without knowing they had been in an asylum; indeed, the law of self-preservation dominated our fathers, as the economic question-frequently misunderstood-influences present legislation, allowing the perpetuation of improper methods. As the first asylum has been mainly devoted to the use of patients long insane, so has the particular method of dealing with the disease been that which force of circumstances has compelled, and which no one could have anticipated. We need to be thankful that the Nestors were finite, else we would be mere imitators, with no opportunity to improve past methods nor occasion to attempt original work. They planned so wisely, however, that no great modification in asylum architecture was made until within a very recent date, indeed hospitals are being erected to-day on the basis of the Kirkbride outline. It has been proven that the number of

^{*}Read at the forty-fifth annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, held at Washington, D. C., April 28th-May 1, 1891.

patients at one time thought proper to entrust to a single management can be very much increased, and there are numerous examples of the propriety of having departed from the old architectural customs.

In Massachusetts the question of dealing with insanity has been a compromise, and expedience has permitted systems which those familiar with the history of the disease have disapproved. From time to time accommodations for the insane have been provided; State hospitals to the number of five and an asylum occupied, departments for the insane added at the State Almshouse in Tewksbury and the State Work-house in Bridgewater. We have in addition one municipal hospital, one corporate institution, seven private asylums, and a hospital for dipsomaniacs and habitual drunkards is being erected. The State institutions contain 4,143 insane, over 600 more than their nominal capacity, yet there remain scattered throughout the Commonwealth in local alms-houses many insane, whose care the State Board of Lunacy and Charity has had occasion to criticise. The State, with one-fifth the area of Kentucky, whose population it exceeds by nearly 400,000, with 145,000 more inhabitants than Michigan, which covers seven times the surface, contains nearly 6,000 insane officially recognized, or one to every 370 of the people, of whom about 800 are in poor-houses or their substitutes. Since 1876 three large hospitals, which are now over-flowing, have been opened, the department at Bridgewater for male convicts and criminals added, and the boarding out system, a most humane and beneficent adjunct in the treatment of insanity, which other States might adopt with profit, inaugurated. During this time the unwise and mischievous compromise was made of allowing the poor authorities to take increasing numbers of the afflicted under their care, against which hospital superintendents protested.

The conditions, then, to which I call your special attention are these: Our hospitals, crowded far beyond their natural capacity, are changing in character, inasmuch as usually only quiet, harmless patients are removed to alms-houses; and the latter institutions afford no curative treatment, the patients being frequently neglected and sometimes abused. The bad effect upon the hospitals is marked, for as time goes on a boisterous, turbulent class of inmates is accumulating, and the surroundings amid which recent cases are placed are not conducive to the comfort and peace of mind of new comers, nor healthful in their impressions upon the more appreciative patients.

Not the least of the evils of over-crowding the hospitals is the necessity of discharging to the care of overseers of the poor patients who would be more comfortable in a well-regulated institution, whose recovery might be effected by continued treatment, but whose rooms are needed for more urgent cases. Did it appear that the insane inmates of alms-houses are happier than they were when in the asylums, or that more liberty was allowed them, the condemnation of that method would not be so severe; indeed there would be some reason for favoring it. While the alms-houses select their cases, taking only the quiet and useful patients, and returning those who become demonstrative, the average amount of restraint is at least four times as great as that found in hospitals treating a much more disturbed class, and the food, clothing and accommodations are usually of a very inferior quality.

Our duty, then, is two-fold in Massachusetts: to relieve the over-crowded hospitals—making them thereby more really curative—and to stand between worthy insane patients and the poor-house. The manner in which these results are to be attained, especially that of meeting the latter obligation, I have denominated A New Departure. To meet existing conditions and remedy increasing evils, steps have already been taken tending towards putting the indigent insane under State control. The productive, tax-paying population have rights the respect of which they demand, and in planning an asylum for the purpose that circumstances have forced upon us, the obligations we owe the well have had great consideration.

With your permission, I will explain some of the leading features of the institution to be erected in Medfield, which town is twenty miles from Boston, nearly in the center of population, on two lines of railroad, to which patients can be transferred from each of the existing hospitals without change of cars. On a tract of land, made up of several productive farms, comprising four hundred acres, bounded on one side by the Charles river, and otherwise well watered, it is proposed to build an asylum suitable for the accommodation of one thousand patients, of the chronic class, and the necessary officers and employés, which shall not exceed in cost, including the price of land, five hundred dollars per patient. The commissioners entrusted with the preliminary work, recommend a cottage asylum, and their detailed plans,—which combine features that do not exist elsewhere, so far as I am

aware,—have been accepted by the Legislature. Upon a plateau in the centre of a parallelogram, so large that future buildings can be added, will be situated the laundry, kitchen, electric light and power-house, and dining-rooms for patients and employés with rooms for the help in the second story. Around the same are to be located buildings for the care of patients, with the administrative department,—the smallest and plainest house in the group, situated at the front end of the plot.

The houses will be two stories high, the sleeping-rooms mainly in the second story, with day-rooms on the ground floor. The classification will be very complete, and, with several departments for the sick and feeble, demented, untidy, excited and quiet, the administration should be easy and satisfactory. The buildings are to be of brick, well constructed, reasonably fire-proof, and devoid of all unnecessary ornamentation; yet while they will be very plain, and adapted to the intended use, it has been found possible to make the lines pleasing, giving an effect in the detailed plans to which the print shown hardly does justice. The houses are so situated regarding the points of compass that sun-light will not be excluded; indeed there will be no dark corners, for, as the longest side of each house has a south-east exposure, the rooms will be flooded with light.

The water-closets, bath-rooms and lavatories are in annexes, well supplied with windows, and having cross-ventilation. All the floors in the annexes are to be of rock asphalt; the walls there, as well as in the entire building for excited patients, are to be plastered with adamant; the plumbing is to be exposed, and the special water-closet ventilation will be independent of that in general. Local steam plants have been designed, and both direct and indirect radiation will be used; open fire-places, which are numerous, will be used as auxiliaries for heating at certain seasons. The chimneys contain fresh-air flues, and carry large ventilating shafts which they heat. The stacks, therefore, not only carry off the products of combustion, but are heat-flues and aspirators as well. While the system of ventilation has received much attention in general, it is expected that the air in the infirmaries and buildings occupied by untidy or excited patients will be rapidly changed. There are transom windows throughout the whole plant, and the infirmaries will have permanent double windows. On one section of the latter buildings there is to be a monitor roof, thus increasing the air-space and further insuring ventilation.

Each building will have a reception-room, so that friends of patients can visit them in the house where they live, and there will be generous provision for sun-rooms and piazzas throughout the establishment. Stairways are sufficiently numerous, and fireescapes will be provided. There will be special dining-rooms in the infirmaries, and small dining-rooms in the houses for excited and untidy patients; but all who are able will be required to assemble in central dining-rooms for their meals. The large associate dining-rooms will have numerous smalk rooms connected with them for the convenience of those patients who would not be benefited by joining a large number, or who have not improved sufficiently to enjoy all the benefits and privileges of companionship. The serving rooms, containing steam-tables, sinks, &c., will be just outside the dining-rooms in the widened end of the corridor connecting the dining-rooms with the kitchen, which is between them. Beneath the dining-rooms, as well as the corridors, will be concreted basements for storage, and in the second story of the same buildings will be apartments for the steward and matron respectively, and the employés under them, the men in the department where male patients dine, and the women in corresponding houses for patients of their sex.

The laundry building, which is a one-story structure, with large windows in the sides and with a monitor roof, contains in addition to the usual laundry appliances and separate lavatories, a spacious mending-room, where all clothing will pass on its way to the assorting-room.

While the executive head-quarters, with a telephone exchange, are in the administrative building, that house is the residence of the superintendent alone, who will occupy the flat in the second story. Believing that the disadvantages far outnumber the benefits arising from having all the officers massed in one building, which to accommodate so many must be large and perhaps expensive, the commissioners adopted, or, so far as I know, originated, the method of providing quarters for the staff in those buildings where their services are most likely to be required at night. In the infirmaries at the four corners of the village will be suites for the assistant physicians, the head supervisors will have rooms in the houses for excited patients, and the assistant supervisors will be domiciled in other suitable buildings. As already stated, the steward and matron, to extend the method of divided oversight, will have rooms near their subordinates in the departments over

which they preside. The superintendent will, in fact, have a house to himself, which will be in general keeping with others on the grounds. With a complete telephone exchange, I believe the plan which I have outlined, with many of the departments presided over by officers above the grade of attendants, will give protection to patients which is impossible in hospitals of the more common style.

Much more might be said regarding certain features in this asylum, but I resist the temptation to discuss the matter.

In recapitulation, I would say that circumstances in Massachusetts demand that we shall relieve the crowded hospitals, and save patients from alms house custody, which can be best done by erecting an asylum for the chronic insane, suitably located and planned for possible extension. Steps have been taken toward placing the indigent insane under State control.

#### THE MECHANISM OF INSANITY.*

BY EDWARD COWLES, M. D., Superintendent of the McLean Asylum, Somerville, Mass.

### III.—PATHOLOGICAL FATIGUE OR NEURASTHENIA.

The normal mechanism has been studied so far as to its elementary parts, and the phenomena attendant upon normal use have been noted with respect to the laws of habit and association, inhibition, the energy of muscle and nerve, and normal fatigue. All these come into play as active factors whenever the mechanism is put in exercise, and they have been studied as comprehended under the laws of physiological use. The distinction has been drawn between normal fatigue as a wholesome result of physiological use, and pathological fatigue from over-use.

It is now in order to consider more fully and precisely the effects produced by over-use as observed in the first stage of nervous exhaustion, or neurasthenia. This will be done with special reference to its mental symptoms, as prodromic to the graver degrees of their manifestation in the mental disturbance which marks the lower stages of nervous exhaustion in melancholia and mania. The subject of this chapter is, therefore, neurasthenia and its mental symptoms. It will be studied in its several aspects as a clinical grouping of symptoms, bodily and mental, with special reference to the significance of its early mental symptoms as affording important indications for diagnosis and preventive treatment; and the principles and data of normal activity already laid down, will be drawn upon, with some unavoidable repetition, in explanation of the phenomena of this disease.

## HISTORY.

Neurasthenia, according to Strümpell, is certainly one of the most frequent and important of nervous diseases. When Beard, in 1868, described under the term neurasthenia a wide range of symptoms of "nervousness," or conditions of nervous exhaustion, he used the term as designating "a chronic functional disease of

^{*}This chapter, and a summary of the two foregoing ones incorporated with it constitutes the Shattuck Lecture, which was delivered before the Massachusetts Medical Society, June 10, 1891.

the nervous system, the basis of which is impoverishment of nervous tissue in excess of repair." When, in 1880 and 1881, he published in his latest works an elaboration of his well-known views, there had been a very general acceptance of the principles they involved; and subsequently many writers have classified neurasthenia as a neurosis, from its having no discoverable anatomical basis, and as signifying "nervous weakness." Beard's attempt to make of neurasthenia a distinct affection has however been questioned. But by his originality and keenness of observation and analysis, he did his part in reducing a great array of data to definite principles, and initiating the wide application that is now being made of them. In respect to their extension and particularly their relation to insanity, a statement here of the position held by the earlier writers will give the key to the present understanding of the subject.

The "deficiency of mental control," "inability to concentrate the intellect on any task," the rapid fatigue from "the exercise of concentration," the "mental irritability" and "hopelessness" were recognized by Beard as notable symptoms. He also observed the fact that "neurasthenia may concentrate itself almost exclusively on the brain-cerebrasthenia-with the symptoms of morbid fears and impulses, depression, insomnia, fullness, headache, impairment of memory, decline in mental force and power of control." But, while making many such precise specifications of most characteristic symptoms of melancholia in its milder manifestations, he would only admit that neurasthenia sometimes leads to insanity; and that, while many cases of nervous exhaustion, with irritability, great depression, etc., tending downward to melancholia, come to the border line, they do not cross it as a rule, though they may do so in extreme cases. Some cases of melancholia in our asylums, he says, have been neurasthenics, and some are saved from becoming insane; but he claimed neurasthenia to be "a distinct disease," not "exhibiting the enormous defect that is seen in insanity."

The universally accepted principles of the "rest treatment" that have become so well understood since Weir Mitchell's first recommendation of them, in 1875, in a regular and systematic scheme of treatment, need no discussion here. All are familiar with the classical description* of his cases of nervous exhaustion and his specifications of the essential elements of the treatment:

^{*} Fat and Blood, 4th Ed., 1885, pp. 38-43.

seclusion, certain forms of diet, rest in bed, massage, and electricity. These measures have stood the satisfactory test of experience by their use in proper cases, in promoting "a liberal gain in fat and blood," of which "the gradual increase will be a visible result of the multitudinous changes in digestive, assimilative, and secretive power in which the whole economy inevitably shares." The great importance of the mental element in neurasthenia, and the widening application of the principles and plan of treatment in mental disorders, are in fulfillment of Mitchell's own prophetic words, that its sphere of usefulness was likely to extend beyond the limits originally set by him. The bodily conditions in insanity were not fully recognized as so largely those of nervous exhaustion as they really are; and Mitchell, Goodell, Playfair and others have held like views on this point. Mitchell wrote, "the true melancholias, which are not merely depression of spirits from loss of all hope of relief, are best left alone as far as this treat. ment is concerned. The nutritive failures which so often accompany them must be met by other means than rest, seclusion, etc.;" and this opinion was believed to be "sustained by some failures" on his part, and by the opinions of others.

It is interesting to note, however, how largely the plan of treatment was addressed to the mental condition of the patients-the manner in which their confidence and cooperation was gained, and particularly the seclusion, were for their mental effect. The need to "rest the organs of mind" was noted, and that "it is thought with the friction of worry which injures, and unless we can secure an absence of this it is vain to hope for help by the method" described. It was Playfair's rule that the mode of treatment is "valueless without the cordial submissive assistance of the patient." But we have now been taught by experience the efficacy of these measures even when enforced, in the nervous exhaustion of melancholia and mania. All writers have observed, as did Mitchell, that "many neurasthenic people suffer from any prolonged effort at attention,"-also the common loss of mental control. It is this characteristic lessening of the power of voluntary attention that becomes so significant in its diagnostic value after we have observed its greater weakening in the graver exhaustion of melancholia. The common occurrence in the cases described, of a brain hyperæsthesia as mental irritability, the depression of feeling, and despondency, are equally significant and characteristic of mental disorder from nervous weakness.

Hereditary and Acquired Neurasthenia.—The fact of hereditary predisposition was observed by all writers. Beard characterized it as a congenital weak resistance of the nervous system, entailing neurasthenia as a disease, or as constituting a nervous diathesis upon which the disease would be developed under deficient nutrition. But the idea of it as a clinical entity, to be differentiated from other nervous and mental disorders, has been broadened by some who regard neurasthenia as the primary condition of all nervous degeneracy, not as itself a neurosis or a psychosis, but as the soil from which these may grow. There are two great groups of these affections, the hereditary and acquired. When inherited there may be organic modifications, permanent embryonic conditions of the central nervous system as found in idiocy, etc., according to Arndt; or there may simply be a neuropathic predisposition with organic changes as yet undiscoverable, -a constitutional weakness and instability of the nervous system,—and this is hereditary neurasthenia. The form of acquired neurasthenia may occur in the constitutionally strong, and both forms may be due to any nutritional or toxic causes that can initiate a condition of weakness and irritability of the nervous tissue. Upon such a basis of organic and neurasthenic weakness, there may be engendered not only nervous disorders in general, but processes of degeneracy; and there may be like disorders and degeneracy in respect to those nervous functions which we call mental. All diseases being considered not as "entities," but as morbid conditions and processes of which we observe the "symptoms," we may regard neurasthenia as a disease either hereditary or acquired, and as manifested by many mental symptoms.

General Relation to Insanity.—The statement has already been made that in certain forms of insanity the bodily conditions are essentially those of nervous exhaustion. Of the great number of people who are in neurasthenic conditions, it is true to say that only a certain proportion become insane. But, conversely, the proposition may be equally true, that all people of previously sound health and constitutions, who become insane with ordinary functional mental disorders, have their psychoses dependent upon neurasthenic conditions of the organism, whether the nervous power is annulled quickly by shock, or enfeebled more slowly by prolonged stress or other weakening influences. The fundamental condition here is acquired neurasthenia; when it is hereditary

there is a plainer dependence thereon of mental symptoms that come more readily in such cases from stress, nutritive failure, etc. Insanity is always weakness from some cause or other, and the group of symptoms in any given case is a matter of the kind and degree of nervous exhaustion. We find the mental symptoms of neurasthenia in insanity, but being emphasized in unequal degrees in the latter condition, their import is more clearly revealed. Thus we may learn from the study of insanity how to understand and treat the lesser manifestations of nervous exhaustion in its earliest stages, as they are commonly seen by the general physician. In the study of the mental conditions having a common etiology, it will be of advantage if in either case the source and genesis of the symptoms can be made clearer. The present endeavor is to make such a contribution to the subject from observations of mental disorders dependent upon neurasthenia. It will first be necessary to consider some of the fundamental principles that must be regarded in the analysis and interpretation of the data of clinical observations.

#### THE ANIMAL ORGANISM A MECHANISM.

The animal organism being regarded biologically as a mechanism, it is conceived as made of minor mechanisms when studied by the physiological method; and their relations may be studied as represented by their activities, as must be done when we can not reason from structure to function. This is peculiarly true of the mental mechanism and its activities, such as attention and memory. We can conceive also all the systems and organs of the body as so many coordinated mechanisms, -as the muscular, circulatory, and digestive mechanisms, etc. The nervous system as a mechanism, made up of many local adaptations to structure and function, presents a like variety of minor mechanisms, with peripheral and central elements of coordinated ganglia, nervefibres, and nerve-endings. Any one of these minor nervous mechanisms may become neurasthenic from excessive or irregular exercise of its functional activity; the end-organs of the special senses, and any part of the peripheral or central sensory apparatus may become separately fatigued,-allowance being made for the resistance to fatigue, of conducting nerve fibres.* The same is true of the nervous elements of the motor mechanisms. inhibitory mechanisms, and particularly in the sympathetic system,

^{*}Bowditch, Jour. of Physiol., Vol. 6, p. 133.

neurasthenic conditions of the inhibitory vaso motor centres are especially important in the causation of both local and general disorders. The metabolic processes in general may suffer from central weakness of innervation and control; and there may be neurasthenia of such special organs as the heart, stomach, and liver. Thus there are many forms and degrees of the phenomena of nervous exhaustion classified under the divisions of cerebral, spinal, or general neurasthenia; and hence neurasthenia has been defined by Ziemssen* as "a functional weakness of the nervous system, varying from the slightest degree in single localities to entire loss of strength in the whole nervous system." But though the symptoms vary greatly according to the functions of part affected, we are always led back to one principle:—the weakness of the nervous system from some cause, whatever it may be.

It has already been shown that the physiological basis of these phenomena is the principle of the storage and discharge of energy of muscle and nerve. This accords with the biological theory that all function is due to chemical changes taking place within the organism and that the functional activity of a specialized tissue depends primarily upon these changes in the individual cells. The fundamental idea is, that in the resting state the cell elaborates highly complex compounds, and that these break down to yield the energy by which the cell does its work.

Importance of Physiology and Chemistry.-Such being the character of the organic mechanism, the difficulties have been very great in gaining an understanding of these affections. Writers have dwelt chiefly upon the facts, clinically observed, of the expenditure of nerve force and "the waste of nerve-tissue in excess of repair;" and emphasis has been laid mainly upon the nutritional elements of the problem. But while they have recognized the necessity of treating the mental conditions upon which they made clinical observations, the larger import of these mental symptoms has escaped full appreciation. Moreover, in the search for lesions explanatory of the most marked disturbances of function, anatomy and pathology are as yet disappointing. Physiology offers greater aid, and by the new laboratory methods not only bodily but mental activities may be studied, in advance of knowledge of the structural mechanisms upon which they depend. Now newest of all, comes the science of bacteriology with its

^{*}Neurasthenia. Wood's Monograph. Vol I. 1889, p. 534.

wonderful revelations, and the new discoveries in organic and physiological chemistry; they promise to throw great light upon these mysteries of our problem.

The Essential Considerations.—The present status of this problem gives us two important indications:—first, we cannot correctly conceive the existence of a condition that may be called "pure neurasthenia" as a matter of simple weakness from overuse, and inadequate rest and nutrition, but we must make large account of the presence of toxic materials in the tissues as the immediate products of this normal exercise; and second, we must take into account also the nature and manner of production of the mental symptoms common to neurasthenia and insanity, and their significance and value must be better understood and appreciated. There is time here for only the briefest mention of some of the conclusions reached by the newer investigations in the different branches of this complicated problem; these may serve to indicate the grounds of the arguments in support of the two foregoing propositions.

## I. Toxic Elements in Normal and Pathological Fatigue.

The normal organic mechanism, represented by a healthy adult, may be taken as a standard for observation, as was shown in the previous chapter. When it is stimulated to activity there may be observed the phenomena of use, and of stress from over-exercise. Beginning with the peripheral muscular mechanism, physiology teaches us that fatigue is not the only result of muscular contraction. Noxious products are always yielded as the results of the attendant chemical change in the muscle-substance, by the decomposition of certain parts of which the latent energy is set free and expended in mechanical work. The restoration to the normal state is not alone through rest, and processes of repair by nutrition and the rebuilding of the complex molecular substances of the muscular tissue, but the blood current carries off the immediate waste products, obstructive to function, while it brings new raw material.

Normal Fatigue.—The physiological conditions and changes attendant upon normal fatigue were discussed in the previous chapter, as demonstrated by the experiments of Mosso, Maggiora,

and Lombard, showing that central nervous fatigue, and peripheral fatigue of muscles, may be studied separately; and that the "curve of fatigue" is alike in each case. There is also an intimate connection between the fatigue of both the central and peripheral mechanisms. Under prolonged exercise there is lessened sensitiveness as well as diminished power.

In a man subjected to severe mental work, it was found that the muscles which had been inactive, were weakened by it. The result of such experiments is regarded as going to show that a poisonous material, produced by chemical changes in the brain, enters the circulation and, acting upon the muscles, weakens them. These demonstrations are also in accordance with the generally accepted physiological principle that the central nervous mechanisms, as do the muscular, undergo a regressive metabolism of tissue upon exercise, and that this is also of an oxidative character with toxic waste products. There is also in nervous centres a like loss of normal excitability with fatigue and exhaustion.

Physiological Shrinkage and Recovery of Cell Contents .-The experiments of Hodge on the spinal ganglia of frogs and cats have been described as demonstrating that upon stimulation of ganglion cells, the histological changes of breaking down and building up of cell-contents are accompaniments of the physiological discharge and re-storage of energy. The spinal ganglia of pigeons and English sparrows, after normal exercise, showed exactly similar changes ;-- the difference between the condition of the sparrows' cells, when rested in the morning, and fatigued at night, being much more marked, on some occasions, than could be obtained by the most severe electrical stimulation. Sadowski has obtained the organic changes, of neurotic coagulation and vacuoles in central cells, from peripheral stimulation, mechanical and electrical. There can be no doubt that such visible changes are accompanied by chemical reactions also; the worked cells took the staining differently, and it is probable that new granules were formed taking a darker staining. The evidence is important, that all these changes are normal, and correspond with the daily rbythm of rest and activity,-sleep and waking.

These physiological and chemical explanations of the conditions following exercise, are supported by an evident diminution and removal of the substance of the nerve-cells as a normal process. It is shown that the actual expenditure of energy, muscular or

nervous, is a factor which has always joined to it a toxic element in the products of the changes normally caused in the tissues by functional activity. There may be local areas of toxic influences hindering or inhibiting the functions of distinct peripheral or central mechanisms; and the blood becoming charged with them may produce more general effects.

These are the common phenomena of a normal active life, in the daily round, from morning rest, vigor, and alertness, to evening fatigue, weakness, and heaviness,-both in mind and body. The restoration of normal conditions, with the re-storage of energy, comes through nutrition, furnishing new raw material,-rest, to stop the expenditure of energy and give time for the chemical building up of cell-contents, as well as for the removal of accumulated waste products, - and sleep, to hold in abeyance the general normal irritability, and afford effective repose to all tissues whose activities can be spared from the vegetative life. Unused muscle wastes; when used it grows. The nutrition of a muscle is favorably affected by its functional activity.* As already stated, a wholesome degree of fatigue is normally attendant upon physiological use, through increased blood-supply and re-actions promotive of nutrition; this may be characterized as normal fatigue in contradistinction to the more pronounced effects which constitute nervous exhaustion.

Pathological Fatigue.—In contrast with these normal processes may be placed the picture of the unbalanced conditions of waste and repair,—of expenditure and storage of energy,—the conditions of pathological fatigue, or neurasthenia. In a recent paper, valuable for its concise analysis of the subject, Dana† has given a comprehensive definition. He says "Neurasthenia is a morbid condition of the nervous system whose underlying characteristics are excessive irritability and weakness;" it is "a condition in which the nutrition of the nerve-cells is primarily at fault." Can these phenomena be accounted for in default of anatomical and pathological findings?

It has been shown how inseparably normal fatigue from the discharge of tissue energy is accompanied by toxic products that increase the fatigue. Now every action of the mechanism is considered as aroused by some definite cause or stimulus. Stimulation

^{*}Foster, Physiology 5th, Eng. Ed. p. 148.

Art. Neurasthenia. The Post-Graduate, Jan. 1891.

too soon repeated, without giving time for rest and repair, finds nerve-cells in fatigued areas having less power to act because of inanition from deficient rest and nourishment; they are also hindered in action by the incomplete removal of the toxic products of previous action, -in other words there is inanition and auto-intoxication. Then further assimilation is hindered, -first, by the lessened nutritive quality of the blood from non-eliminated toxic materials; and second, by the probable toxic weakening of the cells' power to assimilate the nutrition that is furnished them. The development of a manifestly morbid condition may be very slow and insidious, or more rapid, according as the balance of the processes of constructive and regressive metabolism is more or less on the side of weakness, exhaustion, and improverishment. In explaining the effect of this gradually failing elimination of the products of metamorphosis, acting as an irritating and exciting intoxication, Kowalewsky* says "there will then be a condition of partial inanition of the exhausted portion of the central nervous system, while, in the same part, partial auto-intoxication is going on, and while the remainder of the organism is in its normal condition. The result of a partial inanition will be an increased excitability on the one side, and on the other, a quick exhaustion of the nervous system; these are the constant characteristics of neurasthenia. Thus a locally limited over-strain of a certain part of the nervous system may lead to exhaustion and neurasthenia."

It has been easy to understand how the "nervous weakness" so essentially characteristic of neurasthenia should be a logical result of "exhaustion" by over-use; here is not only further explanation of this, but the "excessive irritability" is accounted for; tissues weak from partial inanition, and, under constant stimulation from toxic irritation, almost excited into action, are over-sensitive upon the addition of ordinary stimuli. It is a kind of "hair-trigger" sensitiveness that amounts to hyperæsthesia.

The localized neurasthenic conditions being acquired in this way in an organism previously healthy, it is easy to see how "entire loss of strength in the whole nervous system" may come about, through its prolonged exercise without due intervals of rest. In the excess of nervous activity and of the metabolic processes there appears to arise from the decomposition or "combustion" of tissues a condition of general inanition from inability of nerve-cells to take up the nutriment and oxygen presented to them in the circula-

^{*}Centralblatt f. Nervenheilkunde, Oct. 1890.

tion. Kowalewsky describes this as a demand for oxygen in the whole organism, or oxygen-hunger. This tends to increase, by deprivation, the partial and local inanition; and obviously the blood [may be charged with an excess of the products of metamorphosis, through inefficiency of the eliminative processes,—often because of weakened innervation. Then, he says, there is general auto-intoxication, which adds its influence to the limited and local neurasthenic conditions that may have been previously established. From this reasoning we derive four principal factors that, as pathological conditions, operate in presenting the phenomena of neurasthenia, and make up its clinical picture:—

- 1. Partial (local) inanition.
- 2. Partial (local) auto-intoxication.
- 3. General inanition.
- 4. General auto-intoxication.

This leads to the conclusion that, in very many cases certainly, neurastheria has its foundation amply accounted for. The condition of inanition and auto-intoxication, whether partial or general, may vary according to the presence of one or more of the factors and their different values in the particular case. The auto-intoxication will affect one mechanism, or organ, differently from another, according to the dissimilarity of structure and function; from different organs, or tissues, will come different kinds of toxic products, and their effect will vary also according to their amount. In anemia, the general impoverishment of the blood from its own diseases will of course contribute to, and may initiate, both local and general neurasthenic conditions. Even when the blood-supply is ample there may be locally limited over-strain and nervous exhaustion, probably due in part to the inability to assimilate nutriment. The conclusion of this matter is that, in morbid conditions, nervous weakness from inanition, due to expended energy and lack of nutrition of the nervous system, has always joined to it the varied effects of auto-intoxication, as a dual cause of neurasthenia.

# THE ETIOLOGY OF NEURASTHENIA.

The genesis of acquired neurasthenia in a healthy organism can thus probably be largely accounted for as a primary neurosis due to the immediate effects of over-strain, or a primary and toxic disorder of nutritional functions. The principle may be equally well applied to the secondary neurasthenias,—those consequent upon other diseases, each with its peculiar exhausting and toxic influences, as the essential feature of a general pathological diathesis. It is as yet impossible to say what the chemical action in cell-protoplasm may be that causes the increased excitability and quicker exhaustion of nerve tissue, when they are consequent upon the chronic auto-intoxication of the rheumatic and gouty diathesis; but the transmission of these diatheses by heredity we cannot doubt, nor that children inherit neuropathic and neurasthenic predispositions from rheumatic and gouty parents. The same is true of all the "constitutional" diseases. The transmission of the effects of nervous diseases, alcoholism, syphilis, etc., may sometimes be shown in structural changes and defects of the central nervous system, -sometimes, according to Arndt,* in permanent embryonic conditions from arrested development, but slightly demonstrable, and constituting the structural bases of hereditary neurasthenia. While this term may still be fittingly applied to those cases where there is only a predisposition to functional disturbances and disease of the nervous system, the close relationship of all these conditions to organic changes is apparent.

James Putnam, in his study of the etiology of sclerosis of the spinal cord, notes the predisposition by neuropathic inheritance to degenerative change,—the suggestion, by some pathological findings, of a strain of constitutional or developmental weakness,—the general enfeeblement of the whole body through debilitating influences, as probably initial to a primary degeneration becoming relatively chronic,—the increasing importance assumed by toxic influences like syphilis, lead, arsenic, etc., and their conjunction with conditions of simple impairment of nutrition as contributive,—the influence of over-exertion with stimulation and sensory irritation inducing ganglionic exhaustion to a pathological degree,—and the possible relation of acute to chronic local anæmia. Further evidence as to initial conditions leading to degeneration and atrophy of central increous system, through circulatory disturbances and withdrawal of nutrition are of interest here, as given in the citation from Klebs in the previous chapter.

### PATHOLOGY OF NEURASTHENIA.

These pathological considerations indicate the effects that may follow from such initial causes as cerebral fatigue, toxic influences,

^{*}Die Neurasthenie, 1885, p. 110.

[†]Jour. of Nerv. and Ment. Diseases, Feb. 1891.

disturbed nervous elements. As the greater includes the less, we must regard the initial functional weakness and irritability of acquired neurasthenia, proceeding from the same causes, as their milder manifestations. Inasmuch as the "constitutional" taint or diathesis may be transmitted, we know not how, certain conditions in the individual may be regarded as consequent upon it and consistent with clinical observations. It is conceivable that the inheritance includes no more than "a molecular or chemical variation" in the central nervous system as the essential basis of the predisposition in hereditary neurasthenia. This implies "an exhausted or changed nutritional power" and it may affect any special system or organ, as the central nervous system, liver, or kidneys.

The foregoing considerations lead to a more precise conception of neurasthenia as a pathological condition, which may be the outcome of normal activities of the organic mechanism simply carried to excess, and conceivable as a subtle, and perhaps but slight, departure from a normal state. The restoration of cell-contents to a normal state, following the physical changes observed by Hodge in normal fatigue, might continuously fail of being quite complete; and the "molecular or chemical variation" would then become established as the condition of "exhausted or changed nutritional power."

Habit, Diathesis and Idiosyncrasy.—There are other considerations, relating to the effects observed as accompanying the physiological use of the bodily mechanism, that are of great importance here. They include as an active factor, constantly and profoundly influencing all the activities of the mechanism, the law of use and practice, constituting the law of habit; they also include diathesis and idiosyncrasy. These modifying factors, or conditions, are nearly allied and are not always discriminated. The law of habit has been already characterized as a functional

The law of habit has been already characterized as a functional disposition to repeat organic processes. There are material aftereffects of use and practice, which, according to Wundt, consist in molecular changes, and are to be thought of as functional disposition. The disposition must then be considered as consisting in a tendency of cell-contents to repeat the physical and chemical changes that occurred before, upon a repetition of the given

^{*}Kowalewsky, loc. cit.

stimulation. Thus use and practice are fundamental to the law of habit, and the conception of the "path of practice" in the nervous system implies ultimately the disposition of cells and cell-contents to repeat their processes in such a way as to constitute a habit; and through the effect of habit, there come to be paths of least resistance for the discharge of energy of nerve-cells.

The law of habit governs all neural activities, and is fundamental to the law of association, which prevails not only between neural and muscular activities, but between these and mental processes, whether they are physiological and normal, or pathological in their nature. Thus variations of molecular activity acquired by habit, tend to remain as "after-effects" when the causes have passed away. The readiness with which morbid neural habits may be acquired, and how intimate are the relations in their influence upon each other, were noted in the previous chapter. Prince* has also shown how these laws of practice, habit and association, should be extended, in his study of "associated neuroses and psychoses," in hysteria, neurasthenia, etc.

For these reasons the consideration of the constant influence of these laws of use, practice, habit and association should never be overlooked in the study of these disorders of physiological processes. The operation of these laws, when long continued, aids in inducing the changes, or "after-effects," which are conceived as something more than "dispositions" and not yet pathological, but as contributory and initial to such conditions and acting as "predispositions."

In normal conditions, native tendencies may become established in the individual, by "education" of the nervous system through the operation of these laws. When such tendencies have been acquired and come to be transmitted, appearing as a part of the hereditary endowment, there is a significant analogy between them and the recognized morbid "predispositions" which must have been largely acquired through the same laws. It is well, therefore, in seeking for the pathology of neurasthenia, to take account of habit as an element both of acquired neural conditions, and predispositions. The force of habit tends to establish disordered activities by the direct operation of the law of practice in the irregular action. In the evil effects of "disuse," and the consequent loss of power, there is probably never complete disuse, and the effects of vicious and deficient practice are manifesta-

^{*}Jour. Nerv. and Ment. Dis., May, 1891.

tions of the primary law of use. The recovery from chronic invalidism, through resumption of right practice, finds sometimes striking examples, as in "mind-cure," hypnotism, etc. These laws of use, practice, habit, and association in physiological processes also help to an explanation of the clinical phenomena of apparent resistance to nutrition in confirmed neurasthenia. They cannot be ignored as contributive, and perhaps sometimes the sole cause of the underlying molecular variations in the nerve-cells, whose exhausted and changed nutritional power is thus maintained.

The relations of the diatheses to neurasthenia have been noted: great interest also attaches to the study of the more defined and limited tendencies known as idiosyncrasies,* which are innumerable in variety; everybody has them but they are rarely discriminated unless made prominent by their singularity and inconvenience. The well-known forms of idiosyncrasies against certain drugs, articles of food, etc., commonly regarded as constitutional and hereditary, are known to be sometimes suddenly acquired when there had been previous toleration, -for example, in the use of chloral, quinine, tea, tobacco, etc. The changes in the organism induced by drug habits are of equal interest. relation of all these phenomena to molecular and chemical variations finds new explanation in the later views as to the chemistry of cell activity. In the study of neurasthenia it is of special importance to note that such individual tendencies and idiosyncrasies may become emphasized with the lowered tone of the nervous system, and increased susceptibility to toxic influences.

Classification.—In its acquired form, in a previously healthy organism, it is a primary or a secondary neurosis,—primary when it is due to the immediate effects of nervous over-strain, or to a primary and toxic disorder of nutritional processes; and secondary when consequent upon other diseases having a general pathological diathesis with its peculiar exhausting and toxic influences. There is an acute stage, in which the double elements of causation are always present:—exhaustion, with inanition and toxicity. It is important to remember that the acute stage may continue for years with a series of exacerbations, under recurrences of the dual causes and the tendency of nature to effect recovery.

^{*}See Hutchirson, Pedigree of Disease, 1884.

^{*}Field, Six Generic Drug Modifications. July 3, 1884.

Bost. Med. and Surg. Jour. June 26,

which may be finally established. In the chronic stage there has supervened the "molecular or chemical variation" manifested as "an exhausted or changed nutritional power" in nerve-cells,—a condition which may sometimes represent a partial recovery. There may be, in this stage, good blood, good muscles, a well-working mechanism, fairly good health, and physical comfort within lessened limits of nervous strength. The word chronic implies more than duration,—the transition is complete to the stage of permanent change, and the "constitutional predisposition" is fully acquired and established. It is this predisposition, transmitted, which constitutes hereditary nuerasthenia. In this condition all the forms may occur in all degrees of severity, and may be ameliorated by prophylaxis; it may even exist so quiescent and concealed that it appears to have acute and active manifestations followed by recovery.

Autogenous Toxic Substances. - In support of these conclusions, there would seem to be no unreasonable stretch of inference in such an analysis of the well known facts of the autogenous production of toxic substances, and of their action in the causation of neurasthenia. Moreover, these facts, and much past conjecture, are now being reduced to scientific order by the discoveries that have established the principle of autogenous disease. It is shown that as the poisons of infectious disease are the chemical products of the action of bacteria upon organic matter, so there are like poisonous substances that regularly result from the chemical changes in non-infectious tissue metabolism within the body. Just as ptomaines are noxious to the micro-organisms producing them, so are the normal cells injured when the products of their own activity accumulate about them. The discovery, in some of these animal alkaloids (ptomaines and leucomaines), of the chemical poisons that have long been sought, is of special interest in the study of neurasthenia. Some of the substances, not alkaloids, formed in the alimentary canal in the processes of digestion, are powerful poisons,—the albumoses and peptones normally produced in the breaking up of the proteids in the food. As Vaughan* states it, in discussing the chemical factors in the causation of disease, "it matters not whether the proteid molecule be broken up by organized ferments (bacteria), or by the unorganized ferments of the digestive juices,-by the cells of the

^{*} Jour. Am. Med. Assoc., May 16, 1891, p. 16,

liver, or by those still unknown agencies which induce metabolic changes in all the tissues,—in all cases poisons may be formed. These poisons will differ in quality and quantity according to the force which acts." A number of observers have shown that the peptones may have an intensely toxic action, should they reach the general circulation unchanged.

Hare* explains the symptoms of biliousness as not depending upon the changes in the bile, but upon failure of proper digestion in the stomach and intestine, coupled with the development of irritative decomposition-products, including a large number of poisonous alkaloids. Normally these do not form in the presence of the antiseptic bile which counteracts the action of the bacteria introduced with the food and always to be found in the intestinal canal. The disorder of the hepatic function of destroying all poisons of an organic character permits the entrance into the general circulation of these substances, some of which act as do curare, digitalis, atropine, muscarine and picrotoxine; and the number of these compounds is indefinite. He suggests that when symptoms of such poisoning appear relief may be afforded by the known autidotes for those drugs.

Brunton† describes some symptoms of dyspepsia, generally occurring about two hours after meals, as resembling curare poisoning of the peripheral ends of the motor nerves. There are "muscular relaxation," "a curious weight in the legs and arms," which "feel heavy like lumps of lead." He says that the "melancholy and depression of spirits," associated with disorder of the liver, depend upon noxious substances passing into the general circulation because the liver fails to arrest them. He notes the "hypochondriasis and depression of spirits" associated with oxaluria, when "the patients complain of incapability of exerting themselves, the slightest exertion bringing on fatigue." Several cases in the asylums have been described as the insanity of oxaluria. But, as Brunton says, these symptoms may occur without oxaluria, and he conjectures the presence of some poison in the blood.

Halliburton[†] describes choline and neurine as ptomaines which may also be formed during life as leucomaines, in the metabolic processes. Choline is of great importance, as a type of these

^{*} Practical Therapeutics, 1890, p. 357.

[†]Disorders of Digestion, 1886, pp. 42, 47.

[#] Chemical Physiol. and Pathol., 1891, pp. 178, 530.

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alkaloids and neurine is closely related to it. Both act like curare on the end-plates. Muscarine, the alkaloid from poisonous mush-rooms, is of the same class, and can be obtained also from choline by oxidation; it acts directly upon the muscular tissue itself. All these are powerful poisons, and are antagonistic to atropine in their special action on the heart and glandular system. Choline was first obtained by Strecker from bile, but choline and neurine are among the chief products of decomposition of lecithin. This important constituent of nervous tissue, is found also in muscle, blood, and wherever cellular elements exist in the body; it is also in eggs, milk, cheese and other forms of food.

In the changes of nitrogenous metabolism from nervous and muscular tissue through the complex series of transition-products to the end-products discharged as urea, uric acid, etc., these are notably augmented after excessive muscular work. There are a number of the intermediate substances which are credited with possessing an intensely poisonous action; this includes the familiar phenomena of the still undetermined uræmic poisoning. According to Gautier,* in the cycle of changes in the normal tissues of the body, there is constantly going on the formation of leucomaines and their subsequent destruction by oxidation before they have accumulated in sufficient quantity to produce poisonous effects. Hydrocyanic acid plays a very important part in the molecular structure of these bases. One of them for example, xantho-creatine, studied by Gautier, is poisonous, producing in animals depression, somnolence, and extreme fatigue; and it appears in physiologically active muscles along with creatinine. Monari has found this base in the aqueous extract of the muscles of an exhausted dog, and also in the urine of soldiers tired by several hours' walk.

The formation and excess of uric acid in the body, and its elimination, have been among the most thoroughly studied of all the toxic conditions. Whether it is due to an excessive formation in the liver, a defective excretion by the kidneys, or to some abnormal state of the nervous system, the many observers agree to its production of the marked symptoms noted by Murchison, among which are lassitude, headache, vertigo, insomnia, depression of spirits, irritability of temper, etc. Garrod ascribes its retention to failure of excretion; and Haig† has shown that, being formed

^{*}Vaughan and Novy, Ptomaines and Leucomaines, 1888, p. 269.

Huric Acid in Diseases of the Nervous System. Brain, 1891, p. 63.

by normal processes, its storage in the body, or excretion, is greatly influenced by the comparative alkalinity of the blood. which may be made to vary at will, within considerable limits, by the kind of food, the process of digestion, and the use of drugs. Thus the ingestion of acids, etc., reducing the alkalinity of the blood, and therefore its solvent power, causes the accumulation of uric acid in the tissues. The blood being freed of uric acid there is diminished arterial tension, better cerebral nutrition, and sometimes a temporary sense of well-being and exaltation. This condition of the circulation is opposed to the elimination of uric acid. and favors its storage and retention in the tissues, tending to later trouble. But in such cases, when from any cause there is increased alkalinity of the blood, the uric acid is more soluble, and its presence in the circulation produces the mental symptoms described.* Macfarlanet believes that the lessened alkalinity of the blood is the important cause of the disorders of sleep in the gouty, as being dependent primarily upon mal-nutrition of the cerebral cells which renders them irritable and responsive to faint impressions. Cells imperfectly deprived of their detritus do not appear to take up oxygen readily, and consequently they cannot be adequately nourished; they eventually assume a state allied to that met with in neurasthenia.

According to Haig, uric acid in the blood contracts the arterioles and capillaries all over the body, producing coldness of the surface and extremities, and the headache of migraine as a local, vascular effect of uric acid. With lesser effects there are mental depression, dullness and inability for mental effort. Von Jaksch,† using the term uric-acidæmia, has recently found that uric acid accumulates in the blood not only in gout, but in anamic conditions, and considers that the cause of its appearance is defective oxidation. Many observers have attributed gout to the nervous system. James Paget has pointed out that gout mainly affects the sensory parts of the nervous system. These studies show, in respect to this one toxic influence, that its presence in the body, in other conditions as well as the gouty, bears an important relation to the disorders of the nervous, circulatory and nutritional processes,and to that striking symptom of subnormal

^{*} Ibid. "Mental Depression and the Excretion of Uric Acid." Practitioner, Nov., 1888.

[†] Insomnia, 1890, pp. 234-236.

^{\$}See Halliburton, op. cit. p. 733-734; and Haig, loc. cit.

temperature which is persistent in some forms of neurasthenia; it also produces characteristic mental symptoms and disturbance of the sensory functions.*

The way in which repeated muscular contraction causes what is known as fatigue is however very uncertain. In regard to the effect of the accumulation of products of combustion, the increased acidity of fatigued muscles has been noted by numerous observers since Ranket pointed out the depressing effect on muscular irritability produced by all acids, -the carbonic and lactic among others, the muscle being alkaline in a state of rest. This excess of acid manifests itself subjectively by the sensation of fatigue, followed by sleep. The revival of exhausted muscles, upon renewal of the blood stream, is due probably both to the removal of the acids and other products of contraction, and to the fresh supply of oxygen,—the chief end-products of carbon and hydrogen metabolism being eliminated by several channels, expired air, sweat, and urine. Mossot considers that the poison which causes the symptoms of exhaustion is probably not carbonic acid, but a substance of an alkaloid nature produced in small quantities.

In regard to the results of exercise of nerve tissue, it is believed by some that fresh brain, cord, or nerve, has normally an alkaline reaction. All observers however agree on the most important fact, that acidity, whether present initially or not, increases on activity and on death, and is probably due to lactic acid. This inevitably suggests a comparison between nerve and the closely related tissue, muscle. The only known chemical changes during activity of nerve-tissue is the increase of acidity; the only known physical change is an electrical one, other than those shown by the demonstrations of Hodge. Some light may come, from such studies, upon the darkness of our knowledge with regard to the essential molecular changes that attend nervous activity. In the chemical reactions the great importance of a healthy blood-supply is noteworthy here; the deprivation of the oxygen it affords means an abolition of all the higher cerebral functions, such as consciousness and volition.§

There can be little doubt that certain febrile conditions are

Face a review of the subject of auto-intoxication, in an editorial article on Fatigue as a Cause of Disease." Bost. Med. and Surg. Journal, June 28, 1888.

⁺ See Halliburton, op. cit. p. 433.

[#]Report of Internat. Med. Congress, Berlin, 1890.

[§] Halliburton, op. cit. pp. 515, 516.

autogenous; they may be due to excessive formation of poisons in the body, or an accumulation of these through deficient elimination. Bouchard has shown that the urine excreted during the hours of activity is much more toxic than that excreted during the hours of rest. Both physical and mental labor are accompanied by the formation of the poisonous substances which will accumulate if the hours of labor are prolonged and those of rest shortened.* As a result of deficient elimination, "fatigue fever" is not uncommon in its milder forms, with its symptoms of impaired appetite, mental and physical "irritability," restlessness, insomnia or fitful and unrefreshing sleep, and an excited brain that will not rest. In a severer degree this self-produced condition is the "fever of exhaustion;" and this leads up to the deadly typhus, which is the highest expression of the poisoning of the organism by itself or by contact with others under like conditions.†

The general truth of this matter is well summed up by Aitkent when he says that "the healthy living organism may become poisoned (gradually and more or less slowly) by the accumulation within itself of deleterious substances normally elaborated. Hence the slow and insidious onset of much ill-health; and from which recovery is correspondingly slow." The few examples cited serve to show the nature of the evidence, and that we have constantly to deal with definite toxic influences in the processes of nutrition and the discharge of energy in the organic mechanism. It is true that we have as yet little precise knowledge of these toxic substances, and of their effects upon the nervous system. Many of those obtained are probably formed by the action of the reagents used in the analysis, when their existence in free state in healthy tissues is very doubtful. But though the science is yet in its infancy, we know enough to recognize the immense clinical importance of studying the chemical elements whose positive influence in the production of nervous symptoms must now stand as an unquestioned fact. It must be remembered also that we are still compelled to study functional "activities" and disordered conditions of which we can find no trace in the organism.

The study of the general organic mechanism, so far, shows that

^{*} See Vaughn and Novy. Ptomaines and Leucomaines, 1888, p. 293.

[†]See Aitken, The Animal Alkaloids, 2d. Ed. 1889, p. 28.

[#] Ibid p. 20.

it may be conceived as made up of many minor mechanisms, which may be studied as represented by their activities. Some general truths have been reached in regard to all of them as to their coördinations, and the results of their functional exercise. These conclusions are in support of my first proposition, to the effect that, when the mechanism is put into use, physiological activity and toxicity always occur together, and that the condition thus jointly produced has its first expression in normal fatigue. Moreover it appears that in pathological fatigue or nervous exhaustion, which constitutes neurasthenia, there results from excessive use and inanition, a condition of "excessive irritability and weakness" of the nervous system. There is also in acute neurasthenia always an increased toxicity, by its accumulation in fatigued areas, and often by general fatigue and auto-intoxication through disordered nutritional processes.

# PROCEEDINGS OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS OF AMERICAN INSTITUTIONS FOR THE INSANE.

The Forty-fifth Annual Meeting of the Association was held at the Arlington Hotel, Washington, D. C., April 28th to May 1, 1891.

The following gentlemen were present during the sessions:

Allison, H. E., M. D., State Asylum for Insane Criminals, Auburn, N. Y.

Andrews, J. B., M. D., Buffalo State Hospital, Buffalo, N. Y.

Baker, Lucius W., M. D., Riverview, Baldwinsville, Mass.

Blackburn, J. W., M. D., Special Pathologist, Government Hospital, Washington D. C.

Blackford, Benjamin, M. D., Western Lunatic Asylum, Staunton, Va.

Brown, John P., M. D., Taunton Lunatic Hospital, Taunton, Mass. Brush, Edward N., M. D., Sheppard Asylum, Baltimore, Md.

Bryce, P., M. D., Alabama Insane Hospital, Tuscaloosa, Ala.

Buchanan, J. M., M. D., Eastern Mississippi Insane Asylum, Meridian, Miss.

Burr, C. B., M. D., Eastern Michigan Asylum, Pontiac, Mich.

Callender, John H., M. D., Central Hospital for the Insane, Nashville, Tenn.

Campbell, Michael, M. D., Eastern Hospital for the Insane, Knoxville, Tenn.

Channing, Walter, M. D., Brookline, Mass.

Chapin, John B., M. D., Pennsylvania Hospital for the Insane, Philadelphia, Pa.

Chase, Robert H., M. D., State Hospital for the Insane, Norristown, Pa.

Chesher, C. B., M. D., Cleveland Asylum for the Insane, Cleveland, O.

Clark, Daniel, M. D., Asylum for the Insane, Toronto, Ont.

Clarke, C. K., M. D., Asylum for the Insane, Kingston, Ont.

Clarke, F. H., M. D., Eastern Kentucky Lunatic Asylum, Lexington, Ky. Cook, George F., M. D., Oxford Retreat, Oxford, O.

Cowles, Edward, M. D., McLean Asylum, Somerville, Mass.

Crumbacker, W. P., M. D., Athens Asylum for the Insane, Athens, O.

Curwen, John, M. D., State Hospital for the Insane, Warren, Pa.

Douglas, John P., M. D., Western Hospital for the Insane, Bolivar, Tenn. Dozier, L. F., M. D., Assistant Physician, Napa State Asylum for Insane, Napa, Cal.

Drewry, W. F., M. D., Assistant Physician, Central Lunatic Asylum, Petersburg, Va.

Eastman, B. D., M. D., Topeka Insane Asylum, Topeka, Kansas.

Edwards, William M., M. D., Michigan Asylum for the Insane, Kalamazoo, Mich.

Faison, W. W., M. D., Assistant Physician, Eastern North Carolina Hospital, Goldsboro, N. C.

Fisher, Theodore W., M. D., Boston Lunatic Hospital, Boston, Mass.

Fleming, Walter S., M. D., Kings County Lunatic Asylum, Flatbush, L. I. Folsom, Charles F., M. D., Boston, Mass.

French, Edward, M. D., Assistant Physician, New Hampshire Asylum for Insane, Concord, N. H.

Fuller, F. T., M. D., Assistant Physician, North Carolina Insane Asylum, Raleigh, N. C.

Gerhard, J. Z., M. D., Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Gilman, H. A., M. D., Iowa Hospital for the Insane, Mt. Pleasant, Ia. Godding, W. W., M. D., Government Hospital for the Insane, Washington,

Gordon, James, M. D., Assistant Physician, State Lunatic Asylum, No. 3, Nevada, Mo.

Gorton, William A., M. D., Butler Hospital for the Insane, Providence, R. I.

Hall, John C., M. D., Friends' Asylum for Insane, Frankford, Philadelphia, Pa.

Hallock, W. B., M. D., Cromwell Hall, Cromwell, Conn.

Harmon, F. W., M. D., Longview Asylum for the Insane, Carthage, O. Harris, H. C., M. D., State Asylum for the Insane, Morris Plains, N. J.

Head, Louis R., M. D., Wisconsin State Hospital for the Insane, Mendota, Wis.

Hill, Charles G., M. D., Mount Hope Retreat, Baltimore, Md.

Hill, Gershom H., M. D., Iowa Hospital for the Insane, Independence, Iowa.

Hopkinson, S. W., Trustee of the Danvers Lunatic Hospital, Danvers, Mass.

Hooper, P. O., M. D., State Lunatic Asylum, Little Rock, Ark.

Hughes, Charles H., M. D., St. Louis, Mo.

Hurd, Henry M., M. D., Johns Hopkins Hospital, Baltimore, Md.

Hutchinson, H. A., M. D., Western Pennsylvania Hospital for the Insane, Dixmont, Pa.

Hutchinson, M., M. D., Assistant Physician, Taunton Lunatic Hospital, Taunton, Mass.

Jones, E. H., M. D., Central Kentucky Lunatic Asylum, Lakeland, Ky. Knapp, W. M., M. D., Nebraska State Hospital, Lincoln, Neb.

Lawton, S. E., M. D., Assistant Physician, Vermont Asylum for the Insane, Brattleboro, Vt.

Lett, Stephen, M. D., Homewood Retreat, Guelph, Ont.

Lewellen, R. W., M. D., Iowa Hospital for the Insane, Clarinda, Iowa.

Lewis, J. S., M. D., West Virginia Hospital for the Insane, Weston, W.Va.

Long, O. R., M. D., Michigan Asylum for Insane Criminals, Ionia, Mich. Lyon, Samuel B., M. D., Bloomingdale Asylum, New York City.

Meredith, Hugh B., M. D., Assistant Physician, State Hospital for the Insane, Danville, Pa.

Mitchell, T. J., M. D., Mississippi State Lunatic Asylum, Jackson, Miss. Mosher, J. M., M. D., Assistant Physician, St. Lawrence State Hospital, Ogdensburg, N. Y.

Moulton, A. R., M. D., State Board of Lunacy and Charity, Boston, Mass. Munson, James D., M. D., Northern Michigan Asylum, Traverse City, Mich.

Murphy, P. L., M. D., State Hospital, Morganton, N. C.

Nellis, Alexander, Jr., Assistant Physician, Willard State Hospital, Willard, N. Y.

Nims, Edward B., M. D., Northampton Lunatic Hospital, Northampton, Mass.

Noyes, William. M. D., Assistant Physician and Pathologist, McLean Asylum, Somerville, Mass.

Page, Charles W., M. D., Danvers Lunatic Hospital, Danvers, Mass.

Paine, N. Emmons, M. D., Westborough Insane Hospital, [Westborough, Mass.

Palmer, George C., M. D., "Oak Grove," Flint, Mich.

Phelps, R. M., M. D., Assistant Physician, Second Minnesota Hospital for the Insane, Rochester, Minn.

Potter, E. B., M. D., Monroe County Insane Asylum, Rochester, N. Y.

Powell, T. O., M. D., Georgia State Lunatic Asylum, Milledgeville, Ga.

Preston, R. J., M. D., Southwestern Lunatic Asylum, Marion, Va.

Prince, Lawrence H., M. D., Resident Physician, Bellevue Place, Batavia, Ill.

Rogers, Joseph G., M. D., Northern Indiana Hospital for the Insane, Logansport, Ind.

Rogers, Orville F., M. D., Trustee of the Danvers Lunatic Hospital, Danvers, Mass.

Sanborn, Bigelow T., M. D., Maine Insane Hospital, Augusta, Me.

Stearns, H. P., M. D., Retreat for the Insane, Hartford, Conn.

Stedman, Henry R., M. D., "Woodbourne," Roslindale, Boston, Mass.

Steeves, J. T., M. D., Provincial Lunatic Asylum, St. John, N. B.

Stone, B. W., M. D., Western Kentucky Lunatic Asylum, Hopkinsville, Ky.

Talcott, Selden H., M. D., State Homœopathic Hospital, Middletown, N. Y. Tobey, H. A., M. D., Toledo Asylum for the Insane, Toledo, O.

Wagner, Charles G., M. D., Assistant Physician, Utica State Hospital, Utica, N. Y.

Wetherill, Henry M., M. D., Secretary of Committee on Lunacy of Pennsylvania, Philadelphia, Pa.

Witmer, A. H., M. D., Assistant Physician, Government Hospital for the Insane, Washington, D. C.

Woodson, C. R., M. D., State Lunatic Asylum, No. 2, St. Joseph, Mo.

Wright, C. E., M. D., Central Indiana Hospital for the Insane, Indianapolis, Ind.

The Association was called to order at 10.30 A. M., Tuesday, April 28, 1891, by the President, Dr. H. P. Stearns.

The address of welcome was delivered by Dr. J. M. Toner, of Washington, who was introduced to the Association by the President, Dr. Stearns.

Dr. Toner spoke as follows:

Mr. President and Gentlemen of the Association: I esteem it an

honor and a privilege, in behalf of the medical profession, and I may add the citizens of the District of Columbia, to welcome your old and distinguished national association to Washington, and to assure you how gratifying it is to us to have you hold your annual meeting in this city. The Nation's Capital is, and of right ought to be, the favorite city of America, where the people and associations from all parts of the Republic may assemble in conventions, and where all the beneficent organizations having a national scope may convene at their pleasure to confer for the common good and for the enlargement of their sphere of usefulness.

This apparently conventional welcome is intended on our part to be more than an empty formality; we really wish to do whatever we can to make the visit of each of you personally agreeable, and we earnestly desire at the same time that your association may enjoy every facility that may tend to make its labors profitable.

Do not, therefore, I pray you, permit either your natural or professional diffidence to keep you from commanding our services in any matter that may add to your convenience or that will promote the purposes of your meeting. The medical profession everywhere recognizes in the learned alienist an honored co-laborer in the vast field of human infirmities, and they are proud of the eminence your members have attained by devotion in this, one of the most important specialties in medicine.

From the inauguration of your influential and learned Association it has numbered among its members some of the most accomplished and zealous physicians our country has produced. There is no institution in which the people of the District of Columbia take a greater pride than they do in the large and well-appointed hospital for the treatment of the insane of the army and navy and the District, founded by the government of the United States near our city. This, I trust, you may find time to visit during your stay. The other hospitals, general and special, in the District of Columbia, although not large, are convenient of access and well adapted to the needs of this community, and do honor to the humane and enlightened Christian charity of our citizens. The gentlemen in charge of them will, I have no doubt, feel flattered by a call from you, and take much pleasure in pointing out the special merits of their several institutions.

We wish you to feel that while we welcome you to our city, yet, in a national and patriotic sense, it is your own, the people's city: that the medical profession of Washington receive you with pleasure, and will treat you as brothers. We are confident that while your Association is discussing the multifarious diseases of the brain, and comparing results of treatment and the management of institutions for the insane, general medicine will at the same time be benefited.

The millennium has not yet been reached in medicine. There is yet ample room for improvement in every branch of it, and each is inviting the capable and earnest laborer to enter and glean honors. Mountains of unappropriated laurels remain to adorn the brows of the fortunate physicians who may in the least improve the art and science of medicine, or add aught to our knowledge of the means for restoring health to the afflicted.

Although the occasion and the company are inspiring, I must not yield to

the temptation for extended remarks, whether of compliment or of professional theme, for I know how impatient you must be to begin the regular order of business of the meeting. Your programme is extensive, and almost every hour at your disposal has its special assignment. Hoping that you may have not only a profitable session, but an agreeable visit, and that you may carry with you to your homes pleasing recollections of Washington city, is our most earnest desire.

Dr. Stearns. It would doubtless have been altogether satisfactory for the members of this Association to be welcomed to this Capital City of our country by any person selected for that purpose, but I beg to assure you, Sir, that it is doubly satisfactory to us to be welcomed to it by one whose name has been so long and honorably connected, not only with our specialty, but with the advancement and well-being of our profession at large throughout the country.

We read that it was the custom of our ancestors in former times to make pilgrimages to cathedrals and localities, to visit shrines that had been erected in honor of saints and those who have been eminent in religion, and in service to their country. And as we visit St. Elizabeth's Hospital, as we hope to do, I trust that we may regard it as a kind of shrine in honor of the memory of those two persons who long ago selected the site for a hospital for those of the insane who are the wards of the nation and one of whom superintended the erection of it, Dorothy L. Dix, and Charles H. Nichols. And as we bear witness to the improvements that have been made in that place by one who is a kind of Nestor in our specialty, seconded by your able efforts, I am sure it will serve as a stimulus to us to press forward in the field of our chosen duty.

I beg. Sir, that you will accept our most hearty thanks for your welcome to this beautiful city. [Applause.]

The President, Dr. Stearns, announced that the next business in regular order would be the reading of the minutes of the last meeting, by Dr. Curwen.

After a part of the minutes had been read Dr. Steeves moved that further reading be dispensed with.

The motion was seconded and carried.

Dr. Godding. Mr. President: In behalf of the Business Committee, I would say that the committee have agreed upon the printed programme which can be had at the table. I will add a few words in connection with the invitations that have been received by your committee. I may say that the committee have arranged for the formal acceptance of some of these invitations, and some of them are informal invitations for the members of the Association to visit the institutions at their pleasure. We have an earnest invitation from the Board of the Sheppard Asylum to visit that institution directly after our adjournment on Friday. We will leave by the Baltimore and Potomac Railroad at 12.15. They will arrange for a special train to run out from Baltimore to take us there, and I hope it will meet the convenience of the Association generally to make that visit.

Dr. Hurd and the Board of Johns Hopkins Hospital have concluded to waive the invitation to the Superintendents as a body, and ask you individually, at your convenience, after or during this session, to visit the Hospital.

The Board of Visitors of the Government Hospital ask us to visit that institution, and your committee, after looking over the ground, have decided

that Thursday afternoon busses will leave the Arlington at two o'clock sharp for the hospital, returning in season for dinner and the evening session.

Dr. Billings extends an invitation for the members to visit the Army Medical Museum, and we have an invitation from Dr. Philip S. Wales to visit the Museum of Hygiene of the United States Navy.

The arrangement for the Mount Vernon boat, except as to the time hereafter to be announced, appears on the programme. I have, on behalf of the committee, obtained a small book in order that the members who wished to go to Mt. Vernon may register, so that we may know how many to arrange for. We have waited upon the officers of the Mt. Vernon Association and those of the boat and they will make the run at the rate of one dollar per passenger there and back, tomorrow afternoon, provided the weather be pleasant. All who wish to go should register. We will leave the foot of 7th Street on the boat Charles Macalester, giving an hour at Mount Vernon.

In the programme arranged for this afternoon we have specified nothing in particular. It happens that most of the gentlemen coming to Washington wish to see something for themselves. There are many places of interest in the city, such as the Corcoran Art Gallery, the Smithsonian Institution, the White House and the Soldiers' Home. After our morning session—we have no afternoon session—informal visits may be made by members.

On Dr. Curwen's motion, seconded by Dr. Andrews, the report of the Committee on Arrangements was accepted.

Dr. Godding. I would be glad to introduce to the Association Gen. Moore, late Surgeon General of the Army, a member of the Board of Trustees of the Government Hospital. Dr. Toner, another member of my Board, has already been introduced.

Dr. Munson introduced Mr. H. C. Davis, a member of the Board of Trustees of the Northern Michigan Asylum, Traverse City.

Dr. Palmer introduced Dr. William M. Edwards, who succeeds Dr. Palmer as Superintendent of the Michigan Asylum for the Insane at Kalamazoo.

Dr. Louis R. Head introduced Dr. L. H. Prince, Resident Physician, Bellevue Place, Batavia, Ill., also Dr. Westcott, formerly Assistant Physician at the Illinois Eastern Hospital for the Insane at Kankakee.

Dr. Woodson introduced Dr. Gordon, First Assistant Physician at the State Lunatic Asylum, No. 3, Nevada, Mo.

Dr. Chapin. I move that an invitation be extended to the physicians of the City of Washington, and to all members of the medical corps of the Army and Navy in the City of Washington to attend the Association and sit with it during its session.

Dr. Blackford. I hope Dr. Chapin will allow me to offer, not as an amendment, but as a suggestion, that any members of the American Medical Association who may be in the city be invited to sit with us and participate in our proceedings.

The motion of Dr. Chapin, with the suggestion of Dr. Blackford, was adopted.

Dr. Godding. I omitted the name of Dr. Witmer, my first assistant, who is already a member of this Association, but who may need to be introduced to you.

Dr. Burr introduced Dr. Charles G. Wagner, First Assistant Physician at the Utica State Hospital, Utica, N. Y.

Dr. Curwen. The Section of Neurology and Medical Jurisprudence desires to extend a cordial invitation to the Association to meet with it and take part with it in its discussions. The meetings will be held in Grand Army Hall, May 6, 7, and 8.

Harold M. Noyer, Secretary; T. S. Crothers, President.

Dr. Curwen stated that he had received a letter of regret from Dr. Granger, who was unable to attend the meeting of the Association. A letter was also received from Dr. H. A. Gilman, of Mt. Pleasant, Iowa, expressing the fear that he would be unable to attend the meeting on account of the serious illness of his grandchild.

The President, Dr. Stearns, announced the appointment of the following committees: On Nomination of Officers: Dr. John B. Chapin, Dr. T. W. Fisher and Dr. Benjamin Blackford. On Time and Place of Next Meeting: Dr. George C. Palmer, Dr. S. B. Lyon and Dr. Walter Channing. On Auditing the Bills of the Treasurer: Dr. Charles G. Hill, Dr. W. A. Gorton, Dr. H. A. Hutchinson. On Resolutions: Dr. P. Bryce, Dr. C. K. Clarke and Dr. C. W. Pilgrim,

A recess of fifteen minutes was then taken to enable members present to register.  $\cdot$ 

The Association re-assembled at 11.45 A. M., President Stearns in the chair.

Dr. Chapin, from the Committee on Nominations for the ensuing year, reported as follows:

For President, Dr. Daniel Clark of Toronto, Ont.

For Vice President, Dr. J. B. Andrews of Buffalo, N. Y.

On motion, the report of the Committee on Nominations was accepted and adopted unanimously.

The retiring President, Dr. Stearns, then read the presidential address: "Some Notes on the Present State of Psychiatry."

At the conclusion of his address, Dr. Stearns introduced to the Association Dr. Daniel Clark, the President-elect, who, upon taking the chair, was greeted with applause.

Dr. Clark said: Members of the Association: I do not utter a mere stereotyped expression when I say that I fully appreciate the great honor you have conferred upon me in choosing me to be President of this large and influential body, which has existed, as has already been mentioned, for nearly half a century. I am quite well aware that this choice has been made not so much because of any particular desire to honor me personally, but rather as the representative of the comparatively large number who attend from year to year from the Dominion of Canada. I feel, therefore, especially that I represent them as well as myself in occupying this chair of honor. It is one of the most satisfactory things that I know of that you, the alienists of this great Commonwealth, and we, the alienists of Canada, who come from the outposts of a mighty Empire, can gather together from year to year and discuss matters of interest to our profession in the familiar, kindly, brotherly way in which

we have always done. In our work there are no political lines. [Applause.] Whether we live under a Monarchy or in a Republic is of little moment, as our labor is one of humanity and charity,-to cure, if possible, and if not. to see to the protection and comfort until death of a large class of persons who are more unfortunate then ourselves. In this respect, I truly believe "No pent up Utica contracts our powers, for the whole boundless continent is OHTS."

When I look back to the time I first joined this Association, now nearly fifteen years ago, and when I gaze around me and see, as I do to-day, so many strange faces, I cannot help but feel a tinge of sorrow that so many of the great ones of this Association have passed away. When I think of Drs. Ray, Kirkbride, Nichols, John Gray, Goldsmith, Butler, as well as of Dr. Gundry, who passed away last Friday in Baltimore, and others I might mention, I feel that we, the survivors, are merely a relic of the Association of fifteen years ago. Time and death are no respecters of persons.

I feel a personal loss in the death of Dr. Richard Gundry. He and I sat together on the same bench in the grammar school as boys, and studied our mathematics, our Horace and our Homer together. He was a man of gigantic intellect, a gentleman of great culture, of great force of character, a man who was always positive in his nature, but who could always give an intelligent reason for the hope that was in him; full of pugnacity for what he thought was right, but by nature a man of kindly feelings and possessing a tender heart. I feel that the Association has lost in him an able man, and I have also lost in him a personal friend.

I need scarcely repeat that I personally appreciate the high honor of being presiding officer, not simply because I come from outside this great republic. but because any man should feel it a great distinction to be President of an Association so noted as this is. You are not sectional. That is quite evident. You have a latitudinarianism so broad that it reminds me of the countryman of mine who was fond of whiskey, and who joined one Friday night a teetotal society. On Saturday he was found drunk and his minister said to him, "I thought, Sandy, you were a teetotaler." The reply was, "So I am. I am a teetotaler vet, but I am not bigoted." [Laughter and applause.] It is quite certain that you are not bigoted, since you have selected me from across the lines and away to the north, and if I should not discharge my duties as satisfactorily as you might wish, it will not be beneath me to take a hint. I will be like two countrymen of mine who were standing by their gun before the battle of Trafalgar when Nelson from the masthead of the flagship displayed that well known signal, "England expects every man to do his duty." One of the Scotchmen said. "There is nothing said about poor old Scotland." To which the other responded, "Tut, tut, don't you see the point? Nelson knows that all the Scotchmen will do their duty; that's a hint for the Englishmen, he's not so sure about them." I will take a hint of that kind, if I should not discharge my duty in this chair in a proper manner.

I have but little more to add than to again thank you kindly for the honor you have conferred upon me in making me the presiding officer of this great and influential Association. [Renewed applause.]

Dr. Blackford: I move that the thanks of this Association be tendered .

to the retiring President, Dr. Stearns, for the able and impartial manner in which he has presided over the Association and also for the very able and excellent address he has delivered to us to-day.

Dr. Blackford's motion was seconded by Dr. Andrews, and carried unanimously.

On motion of Dr. Andrews, seconded by Dr. Curwen, the Association adjourned until 8 P. M.

The atternoon was devoted to the informal visitation of places of public interest about Washington.

The Association was called to order at 8.20 p. M., Tuesday, April 28, 1891, by the President, Dr. Clark.

The President announced that the first paper of the evening would be read by Dr. C. K. Clarke, entitled, "A Case of Lethargy," which was followed by a paper by Dr. A. R. Moulton, of Boston, entitled, "The New Departure in Massachusetts."

At the close of Dr. Moulton's paper, Dr. Tobey said: Dr. Moulton has so well described the asylum over which I preside at Toledo that it will not be perhaps necessary for me to say anything, except that three and a half years' experience with an asylum on the cottage department plan confirms my opinion that it is a success.

Dr. Clark. I may say, for the information of some of the members of the Association, that we have a branch asylum in connection with the asylum at Toronto which is built on the cottage system plan. Each cottage is two stories high, they are one hundred feet apart, and each contains fifty patients. They have verandas around them, have twenty single bed-rooms and are lighted by electricity. Each cottage has a dining-room of its own and we deliver food by railways underground, lighted by electricity. So that not only in Massachusetts and Toledo, but also in Canada, this system has been adopted. I may say for myself that I have a high opinion of the detached cottages plan. With the detached cottage there are more sunlight, more air, less stair climbing, better classification, and less danger from fire and from epidemics. The cottages are in every way more conducive to the comfort of the patients than any large asylum could possibly be. We have accommodations for three hundred and fifty patients now, and in a few weeks will have an eighth cottage ready. Seven cottages are in use now. Our electric plant, our workshops, our kitchen, laundry, coal-house, bakery and all such are in a central building and connected with underground passages with each cottage.

I should like to hear from the other members of this Association upon this practical point, because it is such. Let us have your views on the question, whether for or against the cottage system.

Dr. Moulton. The statement I intended to make was that I believe this institution contains certain features that do not obtain elsewhere. I refer especially to the difference in the location of the heads of departments. Instead of having them massed in one building, as they are largely in most institutions, the superintendent lives in the administration building; his assistants are scattered through the cottages, and the steward and matron reside in the respective buildings over which they preside. It was this parti-

cular arrangement that I especially referred to in this plan as containing features which, to my knowledge, did not obtain elsewhere.

Dr. Curwen introduced Messrs. L. D. Wetmore and S. R. Mason, Trustees of the Hospital for the Insane at Warren, Pa.

In the absence of Dr. Orpheus Everts, of College Hill, O., the paper announced to be read by him on "The Increase and Prevention of Insanity," was postponed.

Dr. Bryce introduced Dr. James T. Searcy. President of the Board of Trustees of the Alabama Insane Hospital at Tuskaloosa, Ala., who read the next paper, on "Brain Degeneracy."

Dr. Clark. the President. The paper is now open for discussion, I hope you have had enough of this paper to have a discussion upon it. Let us have a discussion anyway.

Dr. Curwen. As there seems to be no disposition to discuss this paper, I would request that immediately after adjournment the members who are present would come forward and register, so that we may know how many are present.

Dr. Clark, the President. This being the last paper, if there is no further discussion upon it, a motion to adjourn will be in order.

On motion, the Association adjourned at 9.40 p. m., until Wednesday, April 29, 1891, at 10 a. m.

The Association was called to order at 10.30 A. M., Wednesday, April 29, 1891, by the President, Dr. Clark.

Dr. Curwen. The Committee on Audit have examined the accounts and have found them correct. The Association is indebted to the Treasurer in the sum of \$150.

Last year a Committee was appointed to prepare a diploma of honorary membership. After considerable correspondence, Dr. Godding requested me to obtain the form of a diploma. I asked a professor of Latin to prepare the form of a diploma in good Ciceronian Latin. He sent me the form of a diploma, saying at the same time that it was difficult to express in good Ciceronian Latin certain things of which Cicero knew nothing. After sending that to Dr. Godding, he said he thought the diploma of the British Medico-Psychological Society would be preferable. The name had to be changed, and here is the point the professor referred to as among the things Cicero knew nothing of,—to find a name for what he never heard of. After consulting with two professors of Latin, to see if the words used would accurately express the title of the Association, we decided to adopt what had been first suggested. It reads in English, "The Association of Physicians Taking Care of the Insane in America." The Latin form of the diploma is here, and any gentleman wishing to brush up his Latin can look it over.

We have obtained a seal engraved by the engraver of the United States mint in Philadelphia. The seal has on it the profile of Dr. Benjamin Rush. The difficulty was to obtain a profile of Dr. Rush. I had an engraved portrait taken from the portrait which is now in the Pennsylvania Hospital in Philadelphia. From it the engraver made the profile.

Then came the matter of the motto. The Professor to whom I first referred

the matter gave a motto which my friend the President would translate, "Give a good dose of hellebore." But Dr. Godding thought it would hardly do to have a punning motto for so grave an Association. Dr. Godding sent me a number of Latin mottoes and also suggested a Greek one, and I took up the Greek, which seemed to me the most appropriate. It was taken from the narrative of the man, referred to yesterday by Dr. Stearns in his presidential address, as restored to sound mind by the Savior on the shores of the Sea of Galilee. Inasmuch as some of you may not have kept up your full acquaintance with Greek, you will allow me to translate it for you: "Clothed and in his sound mind."

Dr. Clark, the President. I think it is now in order for the President to select a committee of three with the Secretary to look over the matter of this Latin and Greek, to see whether it is correct.

Dr. Curwen. I have the authority of two professors for the Latin, and I think that the fact that the motto is a quotation from the Greek Testament ought to be sufficient to vouch for its correctness.

Mr. Brady, the photographer, is very anxious to take a picture of the members of the Association. In making this statement I wish to say that I do not see how the Association can have the photograph taken. If we take this trip this afternoon, I do not see how it can be done.

Dr. Godding has given me some omnibus tickets for those who have ladies with them to go from the Arlington down to the boat. They are round trip tickets and I will leave them here for those who wish to have them for themselves and families.

Dr. Godding. In regard to the tickets for the Mt. Vernon excursion, I would say that we will leave the Arlington by bus at 2.30 for the boat. By arrangement with the proprietor of the Arlington he takes us at half rate for the round trip, namely fifty cents. I suppose there are some of the members who desire to avail themselves of the privilege. Between seventy-five and a hundred have signed to go down, and I know of no more enjoyable trip to make.

In relation to the photographer, I would say that I have been appealed to by Messrs. Bell, Brady and Prince, all good photographers. We have too much laid out for this morning to have the photographs taken at this time. Dr. Paine is Chairman of the Committee on Photographs and he has been engaged during the past year in collecting the photographs of members. The Mt. Vernon photograph fiend may want to take your pictures also. A young man who used to be with me would be glad to come over to St. Elizabeth's and take you there, on the occasion of your visit. Your faces are sought everywhere.

Dr. Hill, of Baltimore. Before the Miscellaneous Business is passed, I would like to ask if the diplomas referred to by Dr. Curwen would not apply just as well for certificates of membership? They are very handsomely gotten up and there is nothing especially in the phraseology to indicate that they are intended solely for honorary membership, and I would, therefore, move that they be made certificates of membership.

Dr. Curwen. As there are further arrangements to be made in this matter, I would suggest that it be laid over for further discussion until to-morrow, and

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then, if it is desirable to obtain a charter, it will come in much better after that, and we can arrange it all at the same time.

The President, Dr. CLARK, announced the next paper by Dr. Tobey, of Toledo, O., on "How to Control the Temperature of the Bath,"

Dr. Tobey's paper was illustrated by various diagrams and blue prints of the style of heater in use at the Toledo Asylum.

The next paper was by Dr. Folsom, of Boston, entitled "Some Points Regarding General Paralysis," at the close of which the Doctor distributed among the members several plates illustrating the microscopic changes in the brain.

The President, Dr. Clark. This excellent paper by Dr. Folsom is open for discussion.

Dr. Fisher. It seems to be a pity that no one besides myself should undertake to discuss this excellent paper of Dr. Folsom, but, as no one does arise to the occasion, I will say a few words.

Dr. Folsom's researches in the study of the prodromal symptoms of general paralysis are well known, and he has undoubtedly succeeded in lengthening that disease backwards five to ten years in some cases. No doubt we have all felt the great desirability of having the numerous varieties of general paralysis classified and analyzed for our benefit. I, as well as you all, have been made aware that these varieties are exceedingly numerous, the variety of symptoms very great, and I have often been puzzled to know whether there was really pathologically one disease or several, or many, the diversity in symptoms was so very great. Dr. Folsom's description of seven or eight of these varieties is exceedingly useful, and corresponds in a general way with my own experience. I think it is the seventh variety which he states is a very rare one, of paranoia followed by general paralysis. A case of that kind has occurred in my experience recently and in some respects resembles the case which Dr. Folsom has so thoroughly reported. It began at the age of twenty in a young man by a well known symptom, hallucination of hearing a voice telling him that he was to marry Queen Victoria's daughter. Whereupon he became very much excited and went to the parsonage to have the matter explained, and at the same time having some hallucinations or illusions of sight, thinking that the stars in heaven were dancing and performing strange antics. Thereupon an attack of more or less marked maniacal excitement occurred and he was detained in an asylum for six months. He was discharged, as it was supposed, recovered, but only apparently so. These statements are all from a biography that he wrote afterwards. He afterwards thought there was to be a religious war and that he was called upon to take part in it. he became a private in the British army and, in spite of occasional hallucinations of hearing, which he described, and in spite of that delusion, he gave good service in various quarters of the British dominions for, I think, two years. He then fortunately married and from that time for a period, I think, of at least seven or eight years, he was, to all appearances, entirely sane; as far as his own account goes, he was entirely sane. His wife did not know of his former insanity, and discovered no signs of insanity about him. He came to America, and, as proof of his probable sanity, the last five years previous to his coming to the hospital of which I have charge I would state that he

was a butler in a wealthy family in Boston, performing the duties of butler for all that period in the most approved manner, so that his services were regarded very highly by the family by whom he was employed. He could hardly have been insane in any degree during that period of time. He then had an attack of excitement, as a result of overwork, and came to the hospital, having a return of all his old delusions, and he also presented some of the physical signs of general paralysis. When he first presented himself at the hospital, not knowing his previous history, I made a diagnosis of general paralysis without any hesitation, and I think that diagnosis was probably correct: after a while indications of systematized delusions appeared and. on getting him to write, which he was quite willing to do, he wrote his history or biography, which he presented to me. It was a document of eighty pages of foolscap, detailing very minutely all the symptoms of his trouble from the beginning. From that I discovered that it was an old case of paranoia with a period of seven or eight years' remission, with a return of the delusions and the motor symptoms of general paralysis grafted upon it.

Dr. Hughes. Mr. President: I believe in the curability of general paralysis of the insane. This is a bold assertion, and it sometimes happens that through radical assertions, progress is made. I do not mean the paresis as described by the earlier writers on the subject. I do not believe in the curability of those advanced forms of the disease such as we recognize generally in our asylums. But I believe, from my own experience outside of an institution for the insane, that there exists in general paralysis a precursory symptomatic stage that is amenable to treatment. Those of you who read The Alienist and Neurologist know that this view is not for the first time uttered by myself. I believe, and I make the assertion with all due modesty and deference to the other gentlemen, that I can make a diagnosis of general paralysis of the insane. I know that I have made such a diagnosis and I know that I have seen cases recover, and I know that my diagnosis has been verified in accordance with the standard of Dr. Folsom by the subsequent history of the case and recurrence of the disease and the patient's final demise. This is a very good criterion generally for the correct diagnosis of general paralysis of the insane. Watch your case long enough and it is the rule to say that if the patient never recovers then your diagnosis is correct. But, if you happen to find a case among all your cases that still remains sane after the progression of the prodromal symptoms, then you must have made a mistake in your diagnosis. I do not subscribe to this kind of logic. I know also that recovery in general paresis is exceedingly rare.

In some of those cases which have been reported by others as well as my-self recurrences in sufficient number have taken place to satisfy most alienists that the individual was unable to make a correct diagnosis. In the majority of cases in which the symptoms under treatment have been suppressed and have remained abeyant for a series of years, they have in my own experience ultimately recovered, and developed finally paretic dementia and the patient has pursued the usual course. But if, among all your cases, there remained one who persists in staying well, who began with delusions of exaltation, who had the motor paretic symptoms and had all the psychical evidences of mental impairment, and submitted to treatment under the impression that his disease

was something else, hæmorrhoids, for example, as happened in one of my cases, and that man remained well for a series of years, pursuing the ordinary avocations of life, it seems to me that it is reasonable to claim that such a case has recovered from general paralysis. We have tittle enough to console us in the meagre recoveries from this disease, our prognostic outlook is seldom good from the mass of cases, and when we do succeed in suppressing the disease and it remains suppressed for a series of years, I think we are justified in claiming it a cure, and in characterizing the recurrence of the disease as a second attack, just as we do in pneumonia and in other of the more common physical affections of the organs. I do not see why we should despair because those who have gone before us have failed to cure this almost intractable affliction, and I do not think we shall make progress by cultivating a hopelessness in regard to its final curability. The earlier symptoms of general paralysis are markedly vaso-motor, and in the suppression of them in general neural restraint and vaso-motor tonics and in the general reconstruction of the organism is our incipient hope for curing this disease.

I would place myself on record again, as I have done in the past, in regard to the possible curability of this disease.

There was one point in regard to the crotic condition of all these patients where extensive mental aberration is concerned, that may be elucidated by the study of the new physiological phenomena to which I have had the honor of calling the attention of the profession of this country on a previous occasion, entitled the "Virile Reflex," and which M. Onanoff has called the bulbo-cavernous reflex. The study of this sign, which needs further elucidation, will enable us to determine whether in these cases of exalted or perverted erotism they proceed from normal or from abnormal neural or psycho-neural conditions, and this can be ascertained through the interrogation of this new reflex phenomena.

Dr. Clarke, of Lexington, Ky. I should like to ask Dr. Folsom if, in describing the different forms of brain disease which resemble general paresis, referred to in this instance, he included those caused by chronic nephritis, or if he never considers chronic nephritis a factor in the production of general paresis?

Dr. Folsom. I do not remember ever to have seen a case where it seemed to be such, but I have seen several cases of chronic interstitial nephritis and subsequent degeneration of the heart. I have seen cases which have been mistaken for general paralysis before I saw them, but the subsequent history satisfied me that they were purely cases of chronic nephritis with secondary changes in the other organs of the body, which are so often found.

The President, Dr. Clark. I might be permitted in connection with this subject to make just one remark. I think this title of general paralysis or paretic dementia is an unfortunate one. If the term paralysis means absolute loss of sensation and motion, then it is not applicable to this disease in all its stages. I have often felt that it would be a good thing if we should adopt instead of the terms general paralysis, and more especially paretic dementia, the term progressive paresis, as paresis means not absolute loss of sensation and motion, but rather a deterioration of motion and partial loss of sensation. A great deal of fallacy in diagnosis is carried with a wrong term.

It is undesirable that these terms should be employed in this disease. It is not correct to state that dementia is a paramount symptom, as a rule, in all the stages of general paresis. It is mental exaltation in the primary form, and not mental deprivation, as dementia is, and therefore the term is an incorrect one, and a better designation, in my estimation, would be progressive general paresis. Every word of the three is appropriate. They convey correct ideas in respect to the disease in all its stages.

Dr. GILMAN. I have been very much interested in the paper of Dr. Folsom and its discussion, and I have only one word to say in reference to the subject. We theorize a good deal in regard to progressive paralysis, in regard to its treatment. We sometimes meet with cases that are reported as recoveries, but it seems to me that the light of experience is the better light to follow until by investigation we find a brighter one. During the period of twenty-five years' service in the care of the insane, with a population of from four to eight hundred, I probably have met with the usual per cent, of such cases as we find them in hospitals for the insane of the country, which is quite a large number annually, and with these cases before me I do not know of one single instance where there has been permanent recovery. There has been what appeared to be an arrest in the progress of the disease and sometimes the patient has returned home, and has done pretty well for a few months, and in rare instances over a period of a year, but has returned to the institution eventually with more extravagant and exaggerated symptoms than when first admitted. In other instances during this period of apparent arrest of the progress of the disease the patient would remain at the institution, and there has been this arrest and stay in the progress of the disease covering two or three or more distinct periods. The final result in each instance, in my own experience, has been the same-death.

Dr. Godding. Mr. President: I do not wish to occupy the time, knowing that our session is so limited, and at the same time I want to express my thanks to Dr. Folsom for the admirable paper he has given us upon this subject, being largely on those premonitory symptoms which we in hospitals so seldom see. Both Dr. Folsom and Dr. Hughes are in a position to give us in a description of that vaso-motor period of general paralysis, or paresis, whichever you term it, the best possible promise of cure. In my own experience about prognosis, it would be that of Dr. Gilman; I would think leprosy more curable than general paralysis after it is well developed. I have known of the arrested condition, and I know what Dr. Folsom says, that the arrested condition is still far short of cure, is true of the patient after paresis.

Our worthy President suggests that paralytic dementia or paresis is not the correct title, inasmuch as the early stage is characterized by exaltation and brilliancy of mind. In my experience that very brilliancy, that exaltation, is accompanied by loss of judgment, a degree of paralytic dementia, a somewhat demented mental condition in the first stage. I have known many cases where I hoped we had a recovery. One occurs to me this moment of a man who presented not only the motor, but the described mental symptoms of the contracted pupil, the tremor of the tongue and the reflex symptoms, who, taken out by his family, as such cases often are, went to one of our leading hotels in Washington, and was for six months the pastry cook at the nead of

that department, showing a good recovery, at least in his admitted power to do work, in a position where any deficiency would be at once discovered. Yet he returned to the hospital and died in the advanced stages of general paralysis. So that with all the hope and the possible chance of these cases being cured before they reach us, I should agree with Dr. Gilman that the result, in my hands, has been uniformly death at last.

Dr. Gorton. Mr. President: I think that much of the value of the paper of Dr. Folsom has scarcely been appreciated. It seems to me that one of the most important things connected with it is the fact that it will tend somewhat to rob the term general paralysis of the almost mortal terror with which it is received by the general practitioner of medicine. If papers of this character can bring this disease, general paralysis, to the knowledge of the general profession in such a way that it will be willing to concede the possible development of the disease in patients at a time when it is possible for a probable arrest to be made, I think it will certainly have done much for their welfare. Beside this, it may, through the family physician, convince the friends that a diagnosis of it is not necessarily equivalent to a death sentence, and thus make them willing to consent to treatment during the early and most favorable period of the disorder. I think, too, that the paper when read by the general practitioner will lead him to a more careful investigation of the prodromal or initial symptoms described by the Doctor. Supposing we do not assume that it can be cured, is it not better for us to establish the fact that we may do something to arrest the disease, if seen early enough, and that the patient may be returned to his family for, perhaps, a year or more, than to give up the case as hopeless?

Again I say that if we can bring to the mind of the general practitioner the information that there is such a disease as general paralysis, which develops very slowly, which has certain pretty distinct characteristics which he should be willing and able to recognize at a period earlier than that calling for hospital care, we shall have conferred a benefit upon a large number of patients who otherwise would become inmates of our asylums at a stage of their malady when all of us feel only too keenly that no treatment can be other than palliative, to say the least, and when arrest seems beyond the range of medical possibility.

The next paper of the session was read by Dr. John B. Chapin, of the Pennsylvania Hospital for the Insane, entitled "Abuse of Hypnotics".

At the close of Dr. Chapin's paper, the President, Dr. Clark, announced that the paper was open for discussion.

Dr. Brush. Mr. President: I have been interested in hearing Dr. Chapin's paper because I have known something of the cases; some have been under my own personal observation, indeed, I may say I have seen nearly all of them.

I have been struck, in these cases, as, indeed, was every member of our staff, by the fact that in nearly every instance the attempt has been made by well-meaning practitioners to take care of cases of insanity or cases of delirium following fever, at home. In most instances the facilities for taking care of the patient were very poor. The house was small, the family was disturbed by the noise and confusion of the case and, very naturally, the resource of the

practitioner in the emergency was to silence his patient and to paralyze his motor, as well as his mental activities, by drugs. I have also been struck by another observation in these cases, because I have treated side by side in the same ward with them a large number of habit cases, alcohol, opium and cocaine. The similarity in the mental and physical symptoms manifested was very marked. Indeed, some of the cases of paraldehyde, bromide and chloral poisoning we have had under observation have very closely simulated some of the cases of delirium tremens; the delirium, the visions, motor excitement and physical prostration were all there.

One case which the doctor has narrated in his paper was a very marked case of delirium tremens caused by well-meant but rather injudicious administration of stimulants in the delirious stage of typhoid fever. We have seen the young man very frequently during a period of three years since then at the hospital and attending to his business about the city, and he has remained entirely well.

The case of paretic dementia, as it was diagnosed by the physician, certainly simulated, not only in the mental but in the motor manifestations, general paralysis very closely. There were disturbance of speech, mental hebitude, grandiose ideas: there were entire absence of the reflexes and a general grouping of the symptoms which might very naturally mislead a person. As the doctor narrated, this patient was put to bed after he had been bathed and fed. He had one dose of hyoscine one night and it was afterwards discontinued. He had a not very stimulating dose of whiskey in milk for a few nights and as has been harrated, he recovered and went home. This is something over a year and a half since. He has visited the hospital frequently since then, and has remained entirely well during all that time. He has a normal reflex and there is absolutely no disturbance of speech and his handwriting is normal.

Dr. Moulton. The paper is one in which I have been very much interested, and I would remark that I have seen a number of cases of a similar nature, one or two of which I will mention.

One of the most marked cases of drug poisoning which I ever saw was the case of a woman who was addicted to the excessive use of tea, who had all the usual symptoms of delirium from the use of alcohol. She made a rapid recovery by proper treatment, the leading feature being the withholding of the drug.

I have within the last few months observed three cases of drug poisoning: one in which the patient was given enormous doses of chloral,—something like one hundred and eighty to two hundred grains a day; and another where nearly as large doses were given, and still a third where the patient was poisoned by the continued use of morphia. These cases made good recoveries by nourishment and the withdrawal of the drug, and are now well. The three last cases which I mentioned, those in which such enormous doses of chloral and large doses of morphia had been given, were rather surprising, because they came to me from the hands of physicians whose principal claim is that they give minute doses of medicine.

Dr. Andrews. Mr. President: Dr. Chapin, in giving his experience with this class of patients, has repeated the experience which we all have had, and has struck the keynote of the cause of much of this trouble when he said in

was due to attempts to treat patients privately at home. The gentlemen who-have during the past few years advocated home treatment for the insane are responsible for a great deal of the damage that has been done by giving large doses of hypnotics. They find that when patients get disturbed, noisy and violent, as they are prevented from using any form of physical restraint, they must employ chemical restraint. In most of these cases it is given by the attending physician without the experience gained as an officer in an institution for the insane, and unaccustomed to treating such cases. This would account for almost all these conditions which the doctor has portrayed in the paper before us.

Dr. Hughes. I think, Mr. President, that the prevailing idea among physicians outside of hospitals for the insane, in regard to insanity, is that the patient might about as well be dead as be insane, and that they are very apt in the majority of instances when they undertake to treat this disease, to act upon the principle that it is their special duty to finish it, to end it-either to kill or cure him, and that speedily. The ordinary therapeusis of this disease seems to be based upon this idea. It is the rule with most of us, I think, who have resided in lunatic asylums to give hypnotics only at the night time, and, as far as practicable, to follow the course of nature as regards the patient, bringing upon him enforced sleep by chemical rest at the time when it would have been natural for the individual to have had normal sleep. I suppose it is the experience of most alienists, as well as my own, that this course enables us largely to dispense with the excessive use of hypnotics. I know it has been my rule never to give a patient a second dose of chloral hydrate or any hypnotic like hyoscine, hysocyamus or any of the more active sedatives until after I have felt my way in regard to the patient, and have ascertained what dose was best for him. Physicians who are accustomed to deal with mental aberration are not in such an inordinate hurry to secure sleep for their patients, provided cerebral exhaustion has not set in or is not imminent—that degree of exhaustion which threatens the life or mental welfare of the patient. But when a man has the misfortune to become deranged and to fall into the hands of a physician who considers himself especially qualified, by reason of his large general and little special experience, to treat mental aberration, a physician who considers that to be successful therapeusis which at all hazard suppresses the mental symptoms, he is very apt to fall into the hands of a physician who will give hypnotics to excess. This is the experience of asylum physicians. It is my experience as a physician outside of asylums, frequently called upon in counsel, and frequently called upon to take charge of these neurotic wrecks and confined lunatics, made so by the injudicious use of hypnotics. I think it is an important rule, in advising with others of our professional brethren, as to our experience in the use of hypnotics in insomnia, to advise refraining from the administration of hypnotics during the day-time, and to appeal to them only when they become necessary at nature's period of rest. I think that is the correct therapeutic principle in the use of hypnotics, to induce sleep at the normal time for rest for the patient, and I think such a course would have a tendency to do away, in the general professional mind, with the propensity to use hypnotics for the sole purpose of suppressing every sort of abnormal cerebral

manifestation. The chemical repression of mental excitation is not the sole purpose of alienism in the treatment of mental disease, because chemical suppression of symptoms is not the cure of disease.

There is a preparation that St. Louis has the honor of having offered to the professional world, not at all objectionable in its place and in its nature in the hands of a skillful physician, any more than the knife of the assassin would be in the hands of the skillful surgeon, but, like the jawbone of Samson's ass, it is capable of slaying, if it has not already slain, its thousands, and yet the combination was a good one. I use to day in my practice (I allude to bromidia) a combination which I used in my institution long before I heard of it as bromidia. I have no declarations to make against the judicious use of that combination, but in the hands of the country practitioner who is compelled ex necessitate to treat every case that comes in his way, and who sometimes makes the mistake of considering himself an alienist, it may do a deal of harm, like every other hypnotic, and it should be used with extreme caution. It should only be given at bedtime or during the night, as a rule.

Dr. Tobey. I rise to say that it is hardly fair to heap discredit upon the general practitioner for all of the abuses of narcotics and hypnotics in his treatment of the insane, because he is not supposed to know by experience their evil effects, neither has he any means of caring for his patients other than by quieting them by the use of drugs. I think it would be well for us all to confess our sins on this line. We all know how easy it is for us to respond when asked by some of the nurses for some sleeping medicine for so and so, and who ask the physician if they cannot have some chloral, and how frequently we have responded to such demands. We cannot tell how much injury we have done without going into a long scientific discussion as to the injurious effects of all hypnotics and narcotics, not excepting any. I long ago learned that in order to have a noisy household and a disturbed lot of patients it was only necessary to administer medicine to disturbed patients frequently. One night might settle an individual case, but a larger dose would be required the next night, and in such cases the doses required would be continually increasing. I would state that I have over eight hundred patients, and only five or six require doses of hypnotics or narcotics. I referred to this character of treatment at the Detroit session of this Association. Dr. Chapin on that occasion asked some questions about it. I do not suppose he questioned my veracity, but rather my judgment in using so small an amount of hypnotics. I am glad to say I have kept up that record. I question if there is any institution using larger quantities which has had better results. To my knowledge it has not had bad effects. My judgment is that we do not require the use of so much medicine of this character. Plenty of fresh air, good food, abundant exercise and pleasant surroundings are better than chloral.

Dr. Gilman. "Honest confession is good for the soul," and I am glad that Dr. Tobey has made his. I think with the doctor that there is danger inside the hospital as well as outside, unless each case is carefully watched. The recent case of mania as admitted to the hospital requires some means to secure sleep and the administration of the dose, whatever may be decided upon, is commenced when the patient is admitted to the hospital. Care, it

seems to me, should be used that this be withdrawn as soon as possible, and the opportunity given for the patient to sleep naturally without the use of the drug being protracted beyond the necessary time. With this care the minimum number, perhaps, which Dr. Tobey has mentioned may be reached, although that will depend somewhat upon the changing population of the institution and the number of recent case; that are admitted. There are occasionally a few chronic maniacal cases to whom it seems necessary to administer some hypnotic, in order to permit the remainder of the household to sleep, but there is only now and then one such case in my experience.

Dr. CLARK, the President. If there are no further remarks to be made on this paper, we will call up the next one, on "Post Neuralgic Psychoses," by Dr. Hughes.

Dr. Hughes. I think you will all be agreeably disappointed when I announce the fact that my paper is not here, and instead I wish to call the attention of your body to that one which I think may be reasonably differentiated from those other forms of mental aberration which follow severe neural strain. Some such cases have occurred in my practice, some have been reported hitherto. Another case has occurred to me during the past year; one of those c'early defined cases which could be entirely separated from any other concomitant sources of neural irritation, and therefore entitled to be classified as a form of mental aberration supervening upon neuralgia alone. The circumstances surrounding the patient were not such as to otherwise develop insanity, her environment, physical, moral and mental, having been such as would not otherwise have developed mental aberration. It supervened, as the previous cases reported, upon the prolonged and excessive strain of an almost general neuralgia, associated with localized neuritis, and the purpose of this paper was to record another one of those instances of true post neuralgic insanity. The question would rise in the mind of any alienist when a subject of this kind is offered, "What are the other causes which may have combined to develop this condition of mental aberration which has supervened upon that of your neuralgia?" The condition which I call post neuralgic insanity is a condition of mental aberration which is post neuralgic exclusively and which follows upon the recovery from the neuralgia, and which reveals the psychical exhaustion and the consequent delirium dependent upon it, following that peripheral irritation. These cases are worthy of a place in the literature because of their medico-legal significance; for the protection of medical practitioners before the courts, if for no other purpose. physician treats a person for neuralgia, the patient undergoes a long treatment at his hands, and on recovery from the neuralgia there supervenes a condition of mental aberration; the patient goes into the courts and considers the sequence a consequence of that treatment, and it is for that reason these cases are worthy of record; and for that reason I propose to place on record this other case occurring in my experience, a case which is undoubtedly one of post neuralgic mental aberration without any other cause, physical, mental or social, to finally develop insanity, but dependent upon cerebral exhaustion, owing to the irritation of long continued neuralgia. This latter sentence contains my definition of post neuralgic insanity.

Dr. Clark, the President. Are there any other observations on Dr. Hughes' remarks?

There being no further remarks, the Association was, on motion of Dr. Curwen, seconded by Dr. Godding, adjourned until 8 p. m.

The afternoon was devoted to informal sight-seeing, including a trip to M(...)

The evening session was called to order by the President, Dr. CLARK, at 8.20 o'clock.

Dr. Brush, of the Sheppard Asylum, Baltimore, read a paper on "Insomnia and its Treatment."

Dr. W. A. Gorton, of Butler Hospital, Providence, R. I., next read a paper on "Two Unusual Cases."

Dr. Folson. Mr. President: It seems a pity that two such interesting cases, and two so well reported, should pass without any discussion whatever. I had the good fortune to see them both and certainly they were cases of unusual difficulty. The second seems to me, on the whole, one of those unusual results of grippe which we all of us have seen, cases which we were unable to classify, and such as occur not only with reference to the brain, but with reference to the heart, nerves and lungs.

The first case was one in which I took an unusual interest. The gentleman whose case was reported I had known ever since he was a child. I had been acquainted with his father, mother, brothers and sisters, most of his uncles and two of his grand-parents, and I think, as Dr. Gorton says, that his family was one of unusual mental ability and sound judgment. There was a phthisical tendency, though moderate, in his mother's family. In the mother's family were also mild cases of melancholia, without distinct delusions, and with the ability to attend to business. The patient was a child, born while his father was in the last stages of consumption. He was an entire anomaly in the family, being without good judgment or sense. He had remarkable absence of self-control in some directions. I remember when he was a boy he threw an axe at one of his brothers. A boy with a normal brain would never do that, no matter how much he was irritated. Although he got on for a while in subsequent life fairly well, yet I may say that there never was a period in his life when his family were easy regarding his future. I saw him a week before he went to the Butler Hospital. Some of his friends at a distance recognized his insanity, at least they all thought they did, and then his wife, sisters and friends at home and then his brother. It was sometime before I could get sufficient evidence to satisfy his family that the case was a serious one. I saw him in the city soon and he promised to go home. He got off at the station about twenty miles from his home and walked that distance across the fields and through the forests. His delusions were those of conspiracy. He had been involved in some land speculations, which were rather doubtful. though there were a few which finally proved successful from the fact that he was not the real agent in the matter; he was doing simply as someone else told him to do. His lawvers were earlier concerned about his mental condition than his family. He was watched pretty carefully, and the first distinct thing which alarmed me was his going into his child's room one night and bidding him good-bve, saving he would never see him again. Everything involving a possible dangerous use had been put out of his reach. About one o'clock

one night he got up and his wife found him looking in the place where his gun was usually kept. He was asked if he was searching for his gun. He finally acknowledged that he was. It was very difficult to satisfy the family what to do, and so it was very embarrassing. His case very soon and very rapidly developed in such a way that the lives of his family, together with his own life, were unsafe. He was a man of such determined will and such a thorough athlete, so absolutely accustomed to have his own way in every respect that he was a most dangerous man to have at large, under the influence of his delusions. On the other hand, it was rather certain that confinement in an asylum might make him worse. But the danger was so great and the duty to his family so clear that it was finally decided on all sides that he should go. I do not think I ever saw just the kind of fury which he showed. He reminded me very much of a medico-legal case of primary insanity that attracted great attention a few years ago. We had to take posession of some papers and notes, about \$10,000, which he had. When we got to the train we had to pick him up bodily with the assistance of three or four men, and put him in, and fortunately there was a special policeman at the train who knew me. There was nothing in his conduct at the time to indicate insanity, and no unusual behavior, other than that which anyone would be apt to do under the impression that some great wrong was being practiced on him, except that he tried to open a window and get out, the train going at the rate of thirty-five miles an hour. His resistance was much greater on getting to the hospital. We learned later that he thought that our intention was to kill him. I am not sure that Dr. Gorton spoke of the furious attempts at suicide which he made. When the temperature went so high I was absolutely at a loss to make a diagnosis. In the family history, as I have said, there were several cases of tuberculosis. I remember that the temperature once ran up to 105 and did not vary very markedly at night. Of course, there are forms of malaria in which there is the fury of delirium, accompanied by high temperature, which, however, is not persistent. His spleen was found to be two and one-half inches in its longitudinal diameter, so that it was quite normal. I was quite at a loss to make a diagnosis.

In regard to the pathological indications, I remember an autopsy that I saw Virchow perform, when he said that he was unable to say what was the cause of death. I think we are all of us onliged to admit that occasionally, or else to acknowledge that our practice is very small. This case was evidently one of chronic meningo-encephalitis, but of precisely what nature seems to me obscure. I do not suppose that such extensive atrophy could have taken place, except after a series of years. Of course, nothing can settle its precise nature, excepting a microscopic examination, which would have been very laborious. Except that they were not symmetrical, the gross appearances suggested general paralysis.

We are very much indebted to Dr. Gorton for reporting the two cases.

Dr. Edward Cowles, of McLean Asylum. Somerville, Mass., next read a paper, entitled "The Seminary Method in Asylum and Hospital Work."

At the close of Dr. Cowles' paper, Dr. Henry M. Hurd, of the Johns Hopkins Hospital, Baltimore, presented a short paper on "Journal Clubs," as bearing upon the same subject.

The next paper was read by Dr. J. B. Andrews, of the Buffalo State Hospital, Buffalo, N. Y., entitled, "Traumatic Hysteria from Railroad Injury."

The President, Dr. Clark, called for remarks on the paper of Dr. Andrews. Dr. Hurd. I would like to say that in these railway injuries the most important therapeutic means at the control of the physician is to advise the patient to settle with the railway company. In almost every instance such patients get well; but the patient does not get well until he gets paid. When the damages are paid he speedily recovers.

Dr. Fisher. I have been very much interested in the paper just read and in the remarks upon it by Dr. Hurd. I last evening spent an hour in the company of two distinguished lawyers from my State, one of them counsel of one of our principal railroads. I learned the results in a number of cases in which large damages had been paid, cases in which I had myself testified, some of them in which the results were unknown to me. I was very much interested in hearing the conclusion of some of these cases, as they confirmed my former opinions; one possibly reversed them, but that, however, I am not inclined to admit. These gentlemen naturally looked upon Erichsen's book as a great damage to the railroads. They do not believe in concussion of the spine; they believe that most of the symptoms are referable to the head and not to the spine, and perhaps there is some reason for that opinion. The subject is a most important one.

At the International Medical Congress which I attended last summer there was a paper read on the subject of Traumatic Neurosis. I believe the conclusion reached was that there was no definite traumatic neurosis, but that the symptoms were too various to be included under one head; also that simulation was an extremely common occurrence, and that there was no certain method of detecting it in all cases.

Dr. CLARK, the President. I might say, in connection with this matter, that doctors who think it their duty to write books on railway injuries should not with studied intent and malice prepense fly in the face of other authors who have written upon the subject. Erichsen's book was a standard book for many years and the most of us accepted his conclusions, and they were accepted in courts of law. Along came Dr. Page's book, almost directly contradicting Erichsen's conclusions on "Railroad Spine" or cerebro-spinal concussion caused by railroad accidents. One lawyer reads one and another the other to medical witnesses, and so they pit Erichsen and Page against one another. Along comes another book, that of Dr. Clevenger, of Chicago, most solemnly holding another opinion, for he does not believe in spinal shock at all, but thinks it is nearly always in the sympathetic system. These books are all brought into court and fought over by doctors and lawyers. I think it is a pity that doctors writing books do so persistently apply their efforts to only produce ex parte evidence. There is truth in all of the theories, but each successive book seems to be antagonistic to the one which has gone before. Authors should avoid being special pleaders for pet theories.

I agree with Dr. Hurd that there is no more powerful factor as a tonic than a settlement with the railway company by many who are said to have been injured by railroad accidents in the nerve centres.

The next paper was one entitled, "An Altogether Unique Medico-Legal Case" by Dr. C. B. Burr, of Eastern Michigan Asylum, Pontiac, Mich.

At the close of his paper, Dr. Burr said: I would like to ask, in view of the question that this paper brings up, whether in the experience of any member of the Association he has had much success in the use of cathartics administered hypodermically?

Dr. CLARK, the President. Will any member of the Association answer Dr. Burr's interrogation, or offer anything connected with the paper?

Dr. Gorton. As a somewhat consolatory contribution to Dr. Burr's paper, I will simply state that during my service as interne at Bellevue Hospital, a nurse administering an enema to a patient not at all delirious or violent, the nozzle of a Davidson syringe was thrust through the rectum into the perirectal tissue, and a large enema deposited therein. The result was a very active and serious phlegmonous inflammation with a large slough, involving three quarters of the surface of the rectum for one-third of its length. The case dragged on a tedious career for eighteen months and finally made a partial recovery with rectal incontinence.

I merely mention this to show how very easy it is for such an accident to occur, and how, in such a case as the doctor has mentioned, I do not think the physician should attach to himself any blame for directing it. or to the nurse for administering the injection. In the case I report there was very little, if any, violence used, but the result was, nevertheless, disastrous.

Dr. Curwen requested that all members who had not already registered would do so, to the end that the list of members present might be complete.

On motion of Dr. Curwen, the Association adjourned at 10.25 p. m., until Thursday, April 30th, at 10 a. m.

The Association was called to order Thursday morning April 30, 1891, at 10.25 a. m., by the President, Dr. Clark.

Dr. Godding. As the first business is miscellaneous business, in behalf of the Committee of Arrangements, I wish to announce, and as the house is rather thin, I may take the liberty of announcing it again later,—in regard to the visit to St. Elizabeth's this afternoon, we hope you will all be able to go there. The morning session has many papers for discussion and it is probably not safe, after adjourning this meeting and getting our lunch, to start earlier than 2. The barges will be at the entrance at two o'clock, and we certainly ought to get off not later than a quarter past two. My purpose is to take the Association through the grounds of St. Elizabeth, to have you inspect us and to see the whole or as little of the building as may meet your pleasure. I will bring up that point again there and we will decide it after a long and dusty ride.

In regard to the matter of our return to the hotel, some have asked me about that. I think we shall have to start back at not later than half past five or a quarter to six, so that we can get here in time for dinner and the evening session. This looks like a frugal arrangement on the part of the authorities of St. Elizabeth to get you out of the way before dinner. We shall be glad to see all that are here present.

In regard to miscellaneous business. I wish to speak on the matter of photograph. Mr. Brady, Mr Prince and Mr. Bell are anxious to take a photograph of the Association. I submit the question now to see whether the Association as a body wishes the pictures taken. Dr. Paine, of Westborough, whom you appointed chairman of the Committee on Photographs of the Association, will be ready to report at this meeting. I would like to inquire whether the members prefer to have the photograph taken directly after adjournment here or at St Elizabeth's?

On motion it was decided to have the picture taken at St. Elizabeth's.

Dr. Paine presented his report from the Committee on Photographs, as follows: As coming next in order of business, I will report for the picture or photograph committee appointed last year. In July I had circulars sent to every institution in the country. Nearly all answered the letters, but very few sent photographs. After a number of months' work, the pictures were taken to a photographer. Different photographers were asked for prices, which varied from seventy-five cents for a group picture to six dollars. A price was finally obtained of the Boston Photogravure Company, and it will vary according to the amount of work that is done. I felt that it was unwise to arrange for a cheap picture and therefore accepted a price that would furnish a satisfactory result. The number of pictures in the group is one hundred and seventy-six and all have been superintendents, except one, that is, Miss Dix.

The items in the agreement were as follows: One was to have the pictures ready by the first of May. This has not been done. Another was that the individual faces in the picture were to be as good as a sample they furnished me. Another item was that if the picture was unsatisfactory, nothing need be paid and the picture would not be taken. And, finally, that all photographs should be returned to me, so that they might be used by other artists, if desired, in the future.

The amount of work already done by the artists is considerable. A number of the pictures sent me were copies of oil paintings, some were photographs, some were copies of old photographs, daguerreotypes and tin types. About one half of them it has been necessary to retake. Some that were sent were of cabinet size, as requested, but others varied from the size of the thumb nail to half life size. Many of them had to be enlarged and more reduced. The result is not yet satisfactory. It is a crude picture. I have made objections to it and improvements must be made before the picture is approved. On the whole, I think it is very satisfactory. I daresay there are members here who will object to some of the pictures. I should be glad to receive suggestions from anyone.

The arrangement of the pictures is, so far as possible, a geographical one. The original thirteen are in the centre, with Canada above and the South below, New England on the east and the Pacific Slope on the west. The title will be at the bottom. Every head will be numbered and at the bottom will be a list with the number and name of the person corresponding with the numbered pictures in the group, and the different institutious of which each has been superintendent. With this explanation, then, I will pass the picture about to show what the size is.

Now, in getting these photographs, I have made two discoveries. One is that it takes a great amount of time to get up a thing of this sort. I started with the intention of getting it done by New Year's, but was unable to deliver the photographs to the artist before February. The other discovery is that many of the present superintendents are not acquainted with the name of former superintendents of their institutions not twenty-five years old. On that account, it has been impossible to find out the names of all superintendents, to say nothing of their residences. However, many have been very kind in sending all the information in their possession and have thereby assisted in this work.

I wish to ask the Association to continue this committee, as I think it would be wise to continue gathering together the photographs of present members not represented in this group picture, and of future members for the next five or ten years, when another and more complete group can be made. If you will continue this committee, I will endeavor to discharge to the best of my ability the duties devolving upon me.

Disconnected from the picture, there is a result of my experience which I should like to add in the form of a motion. Finding that some of the superindents were unknown, and that some of the institutions do not have records where their names can be obtained, I move that at the semi-centennial of this Association in three years from this time such steps have been taken, that a memorial volume shall be issued by the Association, giving the title of each institution and the names and a short sketch of different superintendents from its foundation up to the date of issue of the book; and in order to accomplish this it would be necessary for some one to assist the secretary. I understand that Dr. Curwen has the names of all the superintendents down to 1884, but not since then, and in order to add the names of those who have become members since then, a considerable amount of labor will be necessary to assist the doctor in his undertaking.

Dr. Clark. the President. You have heard the report made by the chairman of this committee, Dr. Paine. Is it your pleasure that this committee be continued as for the past year?

Dr. Brush. I move you, Sir, that the report of the committee be accepted and the committee continued for next year.

The motion was seconded and carried unanimously.

Dr. Hurd. for the Committee on Autopsies, reported that the committee had prepared a Manual of Autopsies, which was ready for the printer, but they desired further time to make a careful revision and to add two chapters.

The committee asked permission to revise the work, and to print and distribute prior to the next meeting of the Association.

Dr. Godding. In connection with this report, I would say that Dr. Blackburn has brought in and has left with me, where any of the members may see them, a series of plates which I presume would interest the Association.

On motion, the report of the committee was accepted and the committee continued for another year.

Dr. Godding announced that Dr. Charles G. Hill, of the Mount Hope Retreat, Baltimore, extended an invitation to the members of the Association to visit his institution on Saturday.

Dr. Stearns. I would like to present at this time the name of Dr. David Yellowlees, Medical Superintendent of the Gartnavel Asylum, Glasgow, Scotland, for an honorary membership in this Association.

Dr. Yellowlees has held so prominent a position in our specialty for many years and is so well and favorably known to us all by his writings, and especially to those who have had the pleasure of seeing his admirable institution, that he requires no words of introduction to this Association from me.

I wish to move that he be made an honorary member of this body.

This motion was seconded by Dr. Hughes.

Dr. Godding. I understand that the motion has already been seconded, and it will give us much pleasure to have Dr. Yellowlees an honorary member of this Association. Dr. Yellowlees visited us at the time of the International Congress, and certainly as a man he will do honor to the Association.

Dr. CLARK, the President. It has been usual in proposing honorary members to refer their names to a committee of three. Shall it be done in this instance? I think that is a safe way to do, as a great many names will probably be proposed in the future.

Dr. Godding. I think, Mr. President, that the ex-presidents are the committee, and added to their number enough to make the number five. Dr. Folsom at the last meeting was made an honorary member without such reference. Dr. Everts said that he was so well known that it would not have to be referred to a committee. I think the same thing might be done in this case.

Dr. Stearns' motion that Dr. Yellowlees, of the Gartnavel Asylum, Glasgow, Scotland, be made an honorary member of the Association was carried unanimously.

Dr. Brush. If in order, I would like to say a word in regard to the visit of the members to the Sheppard Asylum. It would be a great convenience to the trustees, as well as myself, if the members intending to visit the asylum would kindly indicate their intention. We cannot show you very much in operation, but we can show you an institution which has been for many years in construction and which may interest you. The train leaves here at 12.15, arriving in Baltimore a little after one, when we may take the train out to the asylum grounds, returning in time to take the trains north.

Dr. Powell. I would like to have the honor of introducing to you Dr. Eugene Foster, a trustee of the Georgia Lunatic Asylum.

Dr. Foster. Mr. President: As a member of the Board of Trustees of the State Lunatic Asylum of Georgia, I have come in their interests, and it will give me great pleasure to come here and listen to your deliberations.

Dr. Hill, of Iowa. I understand that Dr. Paine made a motion, when he made his report, that we have a memorial of this Association published at the time of the semi-centennial meeting, giving the lists of the superintendents up to that time and the names of their institutions for reference, etc.

Dr. Paine. I made the suggestion that the committee be continued and I made a motion subsequent to this that a memorial volume be published.

Dr. Paine's motion was seconded by Dr. Hill.

Dr. Chapin. Before that motion is put I wish to say a word. It opens up a new and wide range of work, which I do not think was contemplated when

it was first proposed. I am not in favor of the motion as offered. The preparation of a programme, or any portion of such a work, for our approaching semi-centennial anniversary, ought to be carefully considered and not undertaken at this meeting.

Dr. Hurd. Mr. President: In conversation with Dr. Paine this morning I got the impression that all he desired was merely a list of the past and present superintendents of institutions for the insane. I think that in his motion he has possibly not expressed himself clearly. I do not think he intends it to be a memorial volume, but merely a record, and I think, from my conversation with him, he would consider it ample for his purpose if the secretary would compile a list of all past and present members.

Dr. Paine. My intention is this: that where institutions, as I have found, are already unacquainted with their own former superintendents, it seems to me desirable that we should know who the members of our own Association were ten or fifteen years ago, and on that account should have some volume of this kind. I call it a memorial volume because it should contain the name of every superintendent to the present time and because it marks a particular time in the history of the Association,—its semi-centennial. The amount of work done under each name is a matter of individual time and strength, but we ought to have the record,—I will call it a record and not a memorial volume,—and leave it to the secretary to do it. But it will be necessary to take more than one month or more than one year to get it, and of that I am positive; there is a very large number of names in the total.

Dr. Channing. I understand that Dr. Curwen somewhere has a record up to 1884. Is it such a very difficult matter to get the balance of those names from the year 1884?

Dr. Woodson. I think it is a very easy matter to get the names. The names ought to be easily found in the records of the institutions. I am sure that if I did not know the names of the superintendents who preceded me I could find them by reference to the records of the institution. They certainly ought to be on record somewhere. I think we ought to have a good deal of time to get up that volume, and that we ought to have such a volume.

Dr. Chapin. I would like to state for the information of some of the members that a list of hospitals for the insane, with the names of the several superintendents of the institutions carried down to 1885, is now in existence.

I certainly am not in favor of the preparation of any memorial volume just yet, but there is no objection to the completion to date of a list of institutions and superintendents by the Secretary.

Dr. Clark, the President. If I understand the matter correctly, it is simply to get up a complete memorial and sketches of the members of this Association since 1884, and continued as it has been done up to that time.

The motion was carried.

Dr. Blackford. It seems to me that under this head now is the time for the Committee on the Selection of a Place for the Next Meeting to make its report. I do not know whether that committee is ready, but I take the liberty of asking for the report.

Dr. CLARK, the President. I presume they are not or else we would have heard from them.

Dr. Palmer. Mr. President and Gentlemen: The Committee on Time and Place of Next Meeting have considered the matter very carefully and have decided to recommend to the Association Washington as the next place of meeting. It may be well, however, to say that it is rather unusual for this committee to select the same place twice in succession, and to state the reasons therefor.

In conversation with many of the members of the Association, I discovered that twenty favored West Point; ten members, Atlanta; four or five, Washington. Now in regard to West Point, I found that the hotel that the Associa tion would occupy is about three miles from the depot. The hotel near to the depot is too small for their accommodation. I telegraphed Cozzens' Hotel yesterday and ascertained that they open usually about the 20th of May. The experience of the Association has been rather against having a hotel opened for their accommodation. For instance, at Niagara Falls last year the beds were damp and quite a number of the members suffered in consequence. West Point is not centrally located and trains do not go through there from New York and Albany very frequently. The objects we had in mind in naming the place for the next meeting were ample accommodations, pleasant surroundings and the largest attendance. Atlanta was very favorably spoken of, but a number of gentlemen said that they would not be able to attend a meeting there. As I understand it, the meeting next year will be a very important one; the question of re-organization will come up for consideration and it is very desirable that a full delegation should be present. Taking all things into consideration, therefore, your committee unanimously recommend Washington as the next place of meeting.

Dr. Clark, the President. You have heard the report of Dr. Palmer as Chairman of the Committee on Time and Place of Next Meeting, that Washington be the place selected for the annual meeting a year from now. Is it your pleasure that this report should be adopted? Make it manifest in the usual way.

The report was accepted by a vote of 34 to 11.

Dr. CLARK, the President. Now in regard to time. Dr. Palmer, have you decided on the time?

Dr. Palmer. The committee thought that the 28th of April would be a good time?

Dr. Godding. If it is in order, I would like to thank the Association for the honor it has again conferred upon Washington. It seems to me that you have decided rightly in the matter. More and more conventions are coming to meet here in Washington, it being central, so far as the government is concerned. Every other year you ought to come to Washington. I thank you, gentlemen, for your vote to come to the capital.

Now as regards the time of meeting. We have been appealed to by several members that we held the meeting this year too early. I did the best I could to arrange it so that the members coming here to meet with the Association should have the special rates given to the members of the American Medical Association, but they limited the time so that it was impossible to include our meeting. The time of year is certainly pleasant here on the 28th of April, and I want to make this suggestion individually that you come here at that time.

Dr. Paine. I would ask Dr. Godding if there is not some rule as regards the number of persons for which railroads will grant special rates? I assume that if a sufficient number would attend, we could secure special rates.

Dr. Godding. It is possibly an error which your Business Committee has made. We named fifty as certain to be here. This, I believe, is the largest meeting we have had for a long time and it speaks for the wisdom of coming to Washington. In another year I will try to have it arranged so that we can secure special rates on the railroads.

Dr. Steeves. I am very sorry that Washington has been selected as the place of meeting for next year, because I think it unwise to select the same place twice. It may be true that certain members attend the Association for the legitimate purposes of the Association, but I assure you that the gentlemen are sometimes influenced by other motives. I speak for myself when I say that I am very sorry that Washington has been selected for the next meeting. I believe that is the opinion of others here also.

Dr. CLARK, the President. The matter is all settled now, Dr. Steeves.

Dr. Blackford. Do I understand that the time has been selected? Is a motion in order? If so, I move that we meet here on the 15th of May. May is a very pleasant time here, and we can take advantage of the lower rates that will probably be offered, as the season will then be open.

Dr. HURD. The 15th of May comes on Saturday.

Dr. Palmer. I now move that we meet on the second Tuesday in May, as an amendment to the report of the committee.

Dr. Godding. I would like to ask, through the chair, of Dr. Blackford if he is quite sure that we can obtain special rates at that time?

Dr. Blackford. They put them on the market the first of May, I think, for the Virginia Springs. In fact that is a better season than the 28th of April. I offered that simply as an amendment to the report of the committee. I accept the motion of Dr. Palmer, as an amendment to the report of the committee.

Dr. Paine. A gentleman has shown me a circular which he has, stating that for fifty persons special rates can be obtained. I should be very sorry to have the meeting so late as the second Tuesday in May, for the reason that the weather is so much warmer then.

Dr. Hughes. Mr. President: Those who have been in the habit of visiting Washington frequently have generally found it pretty hot here in May, and if getting special rates is any object, it seems to me that by fixing the date some time early in September there would be no difficulty, because all the rates are on usually at that time. I would like very much to see the date fixed a little later on.

Dr. CAMPBELL. I move that in lieu of all motions the matter be referred to the committee, the Secretary to inform the members what date we shall meet; referred to the same committee as a standing committee.

Carried by one vote.

The President announced as the next item on the programme a discussion upon "The Advancement of the Work of the Association and the Advantages of Better Organization." the discussion to be led by Dr. Cowles.

At the close of Dr. Cowles' paper, the President called upon Dr. Chapin.

Dr. Chapin. I think we are indebted to Dr. Cowles for the painstaking and suggestive presentation of the subject which is now before us. It is a privileged question and one that should at all times have precedence in our proceedings, how we can best promote the objects of our Association. It is especially important at this period of our history when by our action we have so largely increased our membership, and at this meeting when the attendance is larger than is usual.

We have no constitution, and whatever principles or propositions we once thought we had have lost their force by changed circumstances and conditions. The bond which holds us together is a brief resolution adopted in 1844 and amended in 1846. This resolution, as amended, simply recites, "That the medical superintendents of the various incorporated or other legally constituted institutions for the insane, or those who may be hereafter appointed to these stations, are constituted members of the Association." Since the passage of the organic resolution other resolutions have been passed from time to time affecting us as an organization. These are scattered through our proceedings of forty or more years. It is probable that not a member, excepting, perhaps, the Secretary, could recall the various resolutions or find them without going through books which are not ordinarily accessible.

The thirteen original members at their first meeting designated sixteen committees to make reports, and at the meeting of 1846 eighteen committees were appointed. The subjects were mainly related to the administration of hospitals and the care of the insane. In 1882 an attempt was made to create sections, to promote special professional work. For various reasons nothing came of this attempt, though I remember that our President ably performed the duty allotted to him. Those appointed to special sections did not report, and others who had no appointment, probably thinking they had no place, presented no contributions. In 1885 the sections were abolished, and all will agree that under the voluntary plan there has been no lack of good papers since, and the subjects of the papers have taken a wide range.

As an association of physicians, we have got along remarkably well under the original resolutions and the supplementary resolutions since adopted. We have spent no time in discussing constitutional or ethical questions, and there has been remarkable harmony. Forty-seven years of the history of an association establishes traditions which are entitled to respect. Some among us may hestitate to give these up, or to change them. I have some sympathy with this feeling, but I believe we have an inheritance of earnest intentions and duties which we must meet and discharge as the responsibilities of to-day demand. From this standpoint it is our duty to act upon the subject that Dr. Cowles has presented, and I shall favor the adoption of any proposition looking to the enlarged usefulness of this Association to the insane, to its membership, and the community where our influence ought to be felt. While we need an organization with clearly defined objects, it need not be complex. We greatly need some efficient machinery for concentrating our work, not so much for the purpose of increasing its quantity, but with the hope of improving its quality. We need an executive committee, or better still, a council, a portion of which shall hold over from one year to another. Until the year 1887 we were in the habit of meeting annually without any programme. Since that year our Committee of Arrangements has carried out the precedent that was then established. Contingencies may arise from the disability of members of that committee, or from unforeseen causes, that might seriously impair the usefulness of a meeting. The success of our annual meetings ought not to depend upon an individual, or any locality where we may choose to meet. During all of these years of our history the Association has been passing through a formative stage. There are, however, new responsibilities that press upon us from year to year which we must meet as professional men and as an association.

While I am ready to render homage to the labors of those who have preceded us, there are problems of to-day that confront us. I hope the Association will take some action leading to a careful consideration of the subject which is now before us.

Dr. Bryce. It seems to me, Mr. President, that the very full and suggestive paper of Dr. Cowles leaves but little to be said in favor of the reorganization of this body. If my information is correct, this Association is about fifty years old, and has a membership approaching three hundred. While for nearly a half century it has held its regular annual meetings and transacted much important business, it has never had a constitution or system of by-laws, but has been governed by a few rules and regulations which were adopted from time to time as circumstances seemed to require. In view of the excellent work that has been done and the harmonious working of the Association during this long period, it is very obvious that the membership of this body, taken as a whole, has been of an exceptionally superior character. When I recall, too, the character of the work which has been accomplished and the influence it has exerted, as well as the fruits it has borne, I am struck with amazement at what can be accomplished with such imperfect machinery.

But while much has been done, it is quite possible that even more might have been accomplished under a more complete and thorough organization and a more comprehensive system of rules and regulations. Be that as it may, however, the time has come for the adoption of such a constitution and by-laws as will enable the Association to regulate its membership and extend its work in such manifold directions as the exigencies seem to require. What the nature and scope of this work is, has already been outlined by Dr. Cowles in his excellent paper; but it may not be amiss to refer, in a brief way, to some of the difficulties under which we have labored in the past and which need to be corrected.

In the matter of membership I believe there has been no rule except the eligibility of every person who has charge of an institution or home, either public or private, and whether incorporated or not, for the care and treatment of the insane. By a recent rule assistant physicians of five years' experience in such institutions have also been declared eligible to membership. It must be very clear to every one present that much more than this needs to be formulated with reference to membership in a great scientific association like this. Superintendents of public institutions for the insane are put in and out of office by the authoritities without the least regard to their previous training, qualifications or scientific attainments. Moreover, any individual who so prefers can establish a private asylum for the insane without producing the

slightest proof of his capability for intelligently pursuing such work. If I am not mistaken, under our present rules—or rather absence of rules—these persons are fully qualified for membership in the Association of Superintendents of American Hospitals for the Insane.

Furthermore, there is no prescribed procedure that I have any knowledge of, by which unethical or unworthy persons can be deprived of their membership. "Once a member, always a member," would seem to be the rule as we are at present constituted. I am glad to say that up to this time this remarkable looseness in the matter of membership has led to no unpleasant results; but who can say when the time may come that we may be forced to take action in the expulsion of unworthy members of the Association?

There are many other matters affecting the status of members that should be specialized in a constitution, but I will not take up the time of the Association by reciting them here, as they must be evident to every one who has had the least experience in the organization of large bodies like ours.

I must be allowed to refer, however, to the great need of a better system of collecting and preserving the many valuable papers read at the annual meetings by members of the Association. The proceedings of these meetings, instead of being printed in pamphlet form, or published, as they often are, in the medical journals along with other matter, should be printed and substantially bound in muslin, so that the entire series should be uniform in print and general appearance. There are few members, I presume, who have the complete proceedings of the Association since its organization fifty years ago. What a valuable acquisition would such a collection be to the library of the scientific alienist!

A more thorough organization of our body would most surely lead to more exact investigation and better work, as well as more of it, in the care and treatment of the insane. By systematically mapping out the work to be done, and the fields to be explored in all the departments of psychiatrical medicine, as well as hospital construction and management; and by appointing each year regular reporters in all of these several departments, much reliable work could be accomplished which is not attempted under our present voluntary system of contributions.

It might be possible, too, to organize this Association with a view to a permanent or fixed place of meeting in the city of Washington, where a suitable building might be had, and a library and collection of interesting objects illustrating the progress of psychiatry be established.

This Association is assuming each year of its existence greater importance in the scientific and professional world; and its collective experience in the care and treatment of one of the most common as well as most calamitous afflictions that befall humanity entitles it to very great consideration on the part of the patriot and statesman as well as the philanthropist. It is not assuming too much to aspire to a permanent meeting place and home for it at our National Capital.

And now, Mr. President, I must apologize for occupying the time of the Association in presenting a matter which has already been so exhaustively treated by Dr. Cowles, and which I feel sure the members of this Association require no further persuasion to endorse. There are always men in every.

assembly as large as this who are naturally opposed to change of any kind; and especially when it comes to changes in laws and constitutions. They say, "Let well enough alone;" and that it is a wise saying all must admit. But there comes a time when even decided changes become necessary to progress. If we would survive and prosper, we must learn to adjust ourselves to our ever changing environment, and this is true of men in the aggregate as well as of individuals. We think it has been shown by Dr. Cowles and the gentlemen who have followed him, that the time has come to change somewhat the character of our organization, perhaps even to change its name to one more comprehensive than the one which it now bears; and I do not question that the matter will receive that careful attention at the hands of the members which it so well deserves. I think a committee should be appointed to take the matter under consideration, and report at the next meeting of the Association, in order that it may be thoroughly investigated and discussed.

Dr. Hurd. In the past the Association has been very largely composed of asylum superintendents; of men who were here simply because they were superintendents of asylums. This was extremely important during the constructive era of American asylums. In the opinion, however, of many members of the Association the time has come when its members should not only be superintendents and managers of asylums, but foremost in psychological work. For that reason it has seemed to me, and to many others, that we could now take steps to enlarge the Association. It is desirable not only that the members should be fit to manage an institution for the insane, but also familiar with mental diseases and competent to investigate the problems which come up in connection with the treatment of those diseases. Instead of an Association of Superintendents we should have a Medico-Psychological Association for the study and better treatment of insanity. The real motive which underlies this movement is that no man shall be a member of the Association or have a place in its discussions merely because he has been elected a superintendent—possibly by a political body. He should be a member of the Association because his qualifications for the place have been passed upon by some competent authority, and he should be declared worthy of membership by the body of the Association. I speak in this plain wav because of the political changes which have occurred of late years in many institutions. The evil system of political control has entered the institutions of several states. Ohio, for example, has had all of the state hospitals reorganized by the appointment of superintendents of the dominant political party. Many other western states are in danger of having their institutions administered by men who have had little or no experience with the insane, and who have received appointments because they have done political service or are able to bring votes to one or the other political party. For that reason, I think at this time it is extremely important that we advance the work of the Association by making it not an association of superintendents, but a medico-psychological association.

Dr. Stearns. Mr. President: I do not rise to add any reasons to those that have been so ably and clearly presented by Drs. Cowles, Chapin, Bryce and Hurd. It seems to me that there can be but one opinion in regard to the desirability of endeavoring to adapt ourselves and our rules and regulations to

the conditions with which we find ourselves surrounded. I simply rise to offer resolutions for the purpose of carrying out the suggestions that have been made in Dr. Cowles' paper. I beg therefore to offer the following:

Resolved, That in view of the development of the Association of Medical Superintendents into a large body of workers in the field of psychiatry, and in view also of the great interests that have come into its keeping, and the duty of making the best efforts for their preservation, the time has come for a better and more efficient organization, for a revision and expansion of its constitution and by-laws, and to provide for the proper officers and all the other essentials to a truer and more complete membership than heretofore.

Be it further Resolved, That a committee of thirteen members be appointed by the president to take the whole matter of reorganization into consideration and make a preliminary report at the present meeting as to the plan of procedure that may best be adapted for the case.

It may seem to the members present that I have suggested a very large number on the committee, but it will be borne in mind that this number is made to correspond with the number (a lucky number, as we like to regard it) of the original members of the Association.

Dr. Hughes. I am heartily in favor of this resolution. It has probably occurred to most of the older members of the Association that the time has come when some changes should properly be made in the government of the Association. That all asylum superintendents should be ex officio members has worked very well hitherto. There are likely, however, to come in the progress of this Association contingencies when, while admitting the principle that superintendents of asylums are entitled to ex officio membership, it would be better to consider their claims or at the same time submit their claims to the voice of the Association. And then the Association has adopted a new departure, and a just one, in the election of assistant physicians, who are likely to become the future active workers in the Association. There is only one point that I shall suggest. I am heartily in favor of dropping this long name, and the principle was embodied in the remarks of Dr. Hurd, but if we change the name, it occurs to me that it might be well to consider the propriety of selecting a name still shorter than Medico-Psychological Association, though our British brethren get along very well with a similar one. We might adopt the name Psychiatric Association, which would be an appropriate one for our body, and of more definite and restrictive meaning than Medico-Psychological. We are healers of mental diseases.

Dr. Blackford. I heartily concur in the resolutions of Dr. Stearns, and also in the remarks of the distinguished gentleman from Missouri. But a good motto is "Festina lente." We had better bear the ills we have than fly to those we know not of. I am very glad, sir, that this whole subject will be submitted to a committee which will report at the next meeting of this Association.

I have been particularly struck with the remarkably able papers that have been read, not only at this meeting, but at the meeting at Niagara Falls, the first I had the honor of attending. I have been also particularly struck with the simplicity of this organization, and the able discussions that have fol-

lowed upon those papers. I think, sir, that it is very important that our organization should not be too cumbersome, and I say that with all due respect and deference to the able paper of Dr. Cowles. By simplicity of organization we can accomplish a great deal more good.

As to the name, I may say that I prefer the name suggested by Dr. Hurd rather than the one suggested by my distinguished friend from St. Louis. That name, especially to the laymen, would be a very embarrassing one for them to translate. The one suggested by Dr. Hurd is much plainer than that suggested by Dr. Hughes, but I hope this committee will give the matter a thorough consideration.

Dr. Stedman. There is a step I have long had at heart, which, it seems to me, should be taken by this Association, which has been already rather too long delayed, and is one which cannot fail to commend itself to the sense of justice and fitness of this Association. I refer to some suitable and lasting recognition by us of the untiring, invaluable and famous services of Miss Dorothy Dix in the cause with which we are all identified. It seems to me, and also, I find, to other members who were older and closer friends of this lamented lady than I, and who, if it were needed, could better speak her worth, that these services through which not only so many of the insane poor of the land, but incidentally members of this Association have been benefited, make the following proposition in every way a desirable one, to say the least. It is that a prize of one hundred dollars, to be awarded every two years, and called the Dix Memorial Prize, open to all American physicians, be offered by this Association—the subject, of course, to bear on the care of the insane. To this end it is hoped and believed that a permanent fund of a thousand dollars will be established by contributions from the medical officers of asylums in this country. Individual members of this Association have already offered sums sufficient to form a substantial nucleus for further contributions, provided the Association be put upon the new footing proposed, and I hope that among the objects to be furthered by the Association as newly organized, with power to receive and disburse property in its interest, this proposition will receive the early recognition so good a cause deserves.

On motion of Dr. Stearns, seconded by Dr. G. H. Hill, the resolutions offered by Dr. Stearns were unanimously adopted.

Dr. Andrews moved that the resolution offered by Dr. Stedman be referred to the Committee of Thirteen on Organization, for consideration. Seconded by Dr. Stedman and carried.

Dr. Walter Channing of Brookline, Mass., next read a paper on "Cranial Measurements of the Insane," illustrating his remarks by various diagrams.

At the close of Dr. Channing's paper, Dr. Godding moved that, in view of the lateness of the hour, further discussion upon the papers, as well as the reading of other papers on the programme, be deferred until the evening session. Carried.

On motion, the Association adjourned at 1 P. M. until evening at 8 o'clock. The afternoon was devoted to a visit to St. Elizabeth's.

The Association was called to order at 8:20 P. M., Thursday, April 30, 1891, by the President, Dr. Clark, who announced that an opportunity would then be given for the discussion of Dr. Channing's paper.

Dr. BRUSH. Mr. President: I think that Dr. Channing deserves the thanks of the Association for the great care which he has taken to prepare a paper upon a subject which very few of us know much about, and that we have all been highly interested in. It is, indeed, an important subject in some respects, and I confess my own ignorance of it, except in a slight degree. I have done something in this line, and am somewhat familiar with the work done by Dr. Clouston of Edinburgh, especially in his observations of misshapen palates, as I happened fortunately to see his casts of some of his cases last fall. I have since read the lectures which he delivered in Elinburgh, as far as they have been published in the Edinburgh Medical Journal. My interest was first enlisted in the subject in preparing an essay upon the subject of idiocy for Wood's Reference Hand Book of Medicine, and through the kindness of Dr. Kerlin I had an opportunity to see some of those queerly shaped heads and deformed palates. My attention was then turned to the condition of the palate in the insane, and I was struck with the malformations found in certain classes of the insane—the adolescent, pubescent and in certain forms of primary insanity.

If I were competent to undertake the discussion of this subject, I should like to pursue it still further, but I feel that the subject is quite beyond me. At the same time, I think we ought to show some consideration to the Doctor for the very careful manner in which he has prepared, and the elaborate manner in which he has presented the paper to us.

Dr. Clark, the President. I would say to the members of the Association that if they wish to peruse an interesting book, and from it to glean further knowledge of this subject, they will find it in Benedict's "Heads of Criminals," an able book which I read last summer, and which has diagrams illustrating the text of the book.

There is a great deal of importance to be attached to the form of the head, and new importance attached to it in regard to criminals. It has been found that no two persons have the contour of the head or even the angles of the face exactly alike, but each head and face is to a greater or less extent asymmetrical, and there has been much importance attached to this fact in detective work, and an effort has been made to have it reduced to a science. No criminal can obliterate these measurements, however much he may disfigure himself otherwise. So that the subject is really an important one from a medico-legal point of view, as well as in respect to the insane.

Those who have not read the book will find in it much food for thought. The paper now read and illustrated is a valuable contribution to this subject of study. No one should be more interested in this subject than alienists.

Owing to the absence of Dr. G. Alder Blumer, the paper announced to be read by him on "Schools for the Insane" was postponed.

The next paper was read by Dr. B. D. EASTMAN of the Topeka Insane Asylum, Topeka, Kansas, on "Mechanical Massage."

At the close of Dr. Eastman's paper, Dr. Hurd said: I have been very much interested in the paper of Dr. Eastman. I think it offers a method of treating a certain class of cases which has not been treated with any great success in usual asylum work, and a class of cases also which has not been benefited by massage so called. Massage, as usually practiced, has been re-

garded especially applicable to cases of defective assimilation. The Weir Mitchell treatment, better known as the "rest cure," has in fact depended upon massage very largely as a substitute for ordinary exercise in the promotion of bodily nutrition. Many physicians who have had occasion to prescribe massage and to use the rest cure, have, in my opinion, made a very serious mistake in confining themselves too closely to it. In many instances patients of this description have really been cut off from taking a normal amount of exercise. Massage has become a substitute for exercise in the open air, which is in many instances far preferable. The Weir Mitchell system of massage, I may say, seems founded upon no well settled principles of scientific therapy. It seems to be a rough and ready means of taking ex-While there are certain nervous, hysterical cases which need the rest cure, it is not as generally beneficial as many have supposed. Cases where it is indicated should be more carefully discriminated; and less discretion should be allowed to the attendants who apply massage. There is also danger that patients who are morbid will become more so if confined to one room and relieved of all responsibility of exertion or exercise. It is my opinion that for many of these patients in whose cases the rest cure is indicated, systematic mechanical movements, such as Dr. Eastman has described, are preferable to massage as usually applied. Hence, I think the rest cure with massage only, should not be resorted to in mental cases except when other remedies fail.

Dr. Curwen. The President requests me to read the following names of the Committee appointed on the Resolutions offered by Dr. Stearns this morning:

Drs. Stearns, Godding, Hurd, Cowles, Chapin, Callender, Bryce, Eastman, Andrews, Dewey, Palmer, C. K. Clarke and Wise.

Dr. Curwen announced the receipt of a telegram by Dr. Stearns informing him of the death of Dr. J. P. Bancroft.

A letter of regret had also been received from Dr. Richard Dewey, regretting his inability to attend the meeting of the Association, owing to important business before the legislature.

Dr. T. W. FISHER read a paper on "Hospital Notes from Europe," which was followed by one on "Dietetics in the Treatment and Cure of Insanity" by Dr. Selden H. Talcott of the State Homeopathic Hospital, Middletown, N. Y.

Dr. Clark, the President. I have to thank the Doctor for his paper because it has suggested a new idea to me. My countrymen are said to always breakfast on porridge and milk, then milk and oatmeal porridge for dinner, and oatmeal porridge and milk in the evening for a change. Oatmeal contains a large quantity of phosphorus, and Scotchmen are said to be long-headed, therefore, it is the oatmeal that makes them so. I have never thought of this before; I see it all now. The paper is a very valuable one for the worthy Scot and his descendants, as an explanation of their psychic condition; therefore, I say "All hail to phosphorus, which makes my countrymen brainy, and, dare I say, pertinacious and full of self-esteem!"

Dr. R. H. Chase of Norristown, Pa., read a paper on "Testamentary Capacity," following which Dr. C. E. Wright of the Central Indiana Hospital for

the Insane, Indianapolis, read a paper on "What Shall be Done with the Letters of the Insane?"

At the close of Dr. Wright's paper, Dr. Rogers, of Logansport, Ind., said: Mr. President, in view of the lateness of the hour and the importance of this matter to be discussed, I desire to move that the question be referred to the Committee on Resolutions for their consideration and for their report of the same to-morrow.

The motion was seconded by Dr. STONE and carried.

The next paper on the programme was one on "The Rest Treatment for the Insane" by Dr. N. Emmons Paine, of the Westborough Insane Hospital, Westborough, Mass.

Dr. Blackford. I move that Dr. Paine's paper be read as the first paper to-morrow morning. Carried.

At 10.55 P. M. the Association adjourned until Friday morning, May 1, 1891, at 10 A. M.

The Association was called to order on Friday, May 1, 1891, at 10.10 A. M., by the President, Dr. CLARK.

Dr. Rogers. Mr. President: In continuation of the discussion of last night upon Dr. Wright's paper, I wish to make a new motion, that the Resolutions of '75, relating to the letters of the insane, be reiterated by the Association again at the end of the session.

Dr. Blackford. Will Dr. Rogers be kind enough to state the purport of the Resolutions of '75?

Dr. Rogers. I would ask that the Secretary read the resolutions.

Dr. Curwen read the resolutions, which are as follows:

"Resolved, That valuable information may be obtained from the letters of patients respecting their mental movements, as many will communicate their thoughts in this manner more unreservedly than in their conversation, which advantage is lost when their letters are forwarded unopened.

Resolved. That inasmuch as the letters of the insane, especially of women, often contain matter, the very thought of which, after recovery, will overwhelm them with mortification and dismay, any law which compels the sending of such letters is, clearly, an outrage on common decency and common humanity.

Resolved, That the fact so much asserted at the present day, and offered as the main reason for the legislation in question, viz: That sane persons are often falsely imprisoned on the pretence of insanity is not true, and that we believe that if ever, it is extremely rare that a single case of wrongful imprisonment in any hospital in this country has taken place.

Resolved, That should such cases occur, it would require more knowledge and experience to detect and expose their true character than any but the officers of the hospital would be likely to possess."

Dr. CAMPBELL. I second Dr. Rogers' motion.

The motion was unanimously carried.

Dr. PALMER. Mr. President: Your Committee on Time of Next Meeting

would respectfully report that it has decided to have the next meeting on the first Tuesday in May, 1892.

My own impression is that in coming here the second time, we ought to take care of ourselves and not tax our brother, Dr. Godding, as we have this year. Having had some experience in such matters, I know how taxing it is to care for a large body of men. I thought I would take this occasion to say that next year we must look out for our own entertainment. There is enough around the city of Washington to entertain anyone.

On motion of Dr. Blackford, seconded by Dr. G. H. Hill, the report of the committee was adopted unanimously.

Dr. Stearns. Mr. President: The Committee appointed in reference to forming a plan for reorganization and to adopt by-laws and a constitution for the Association, desire to present a preliminary report, which is as follows:

After a careful consideration of the subject, the Committee would report that it has deemed it advisable to make a reorganization of the Association substantially on the lines laid down in the paper of Dr. Cowles presented to the Association yesterday. If it would meet the unanimous approval of the Association, the Committee would ask authority to print at the expense of the Association a constitution and by-laws for the information of the members, to be presented for final action at the next annual meeting.

Dr. Fisher. Mr. President: I move that the report be accepted, and recommend that they have authority to print the document.

Dr. Blackford seconded Dr. Fisher's motion.

Dr. Godding. It seems to me that as it might possibly fall to my lot to be again President of the Committee of Arrangements, I would like to make a suggestion that another year we have a session devoted to the consideration of a constitution and by-laws and subjects connected with them. I am aware that it is hardly in order to bring this up just now, but this is one of the most important things we shall have before us at the next meeting. That is primarily the object of having a full meeting at a central point, and in order that this new departure, looking to enlarged work of the Association, may be placed fully before that body, I think the Committee ought to have leave to print the constitution so as to present it to each individual member.

The motion of Dr. Fisher, seconded by Dr. Blackford, was then carried.

Dr. CAMPBELL I move that the present Committee of Arrangements by

Dr. CAMPBELL. I move that the present Committee of Arrangements be continued for next year. Carried.

Dr. Brush. Mr. President: I would suggest that the Committee of Arrangements be instructed to prepare a programme which will permit of one session being devoted to the discussion of organization.

Dr. Curwen. As one member of the Committee has died since the appointment of the Committee of Arrangements for last year, it seems rather necessary that we should have a re-organized committee.

Dr. Godding. As the suggestion of Dr. Curwen is pertinent, and inasmuch as it is permissible for a member of the Committee to make a suggestion, I would suggest that Dr. Andrews be appointed a member of the Committee by the President.

Dr. Curwen. I wish to ask for information if in preparing the report of

the Proceedings for the Association they wish me to insert in the Proceedings of the Association papers that have been read, so far as the gentlemen wish to have them published?

Dr. Andrews. I would like to suggest that the minutes of the meeting be published in the American Journal of Insanity, and that the Association accept the report of the proceedings published in the Journal as the official report. The Journal always provides a good report. This method would also avoid a good deal of trouble. It is not always pleasant for the members to receive two reports and have two sets of papers to correct and return. The report published by the Journal meets all the requirements of the Association, and I would therefore move that the Proceedings of the Association, as reported in the Journal of Insanity, be adopted as the official proceedings for the next meeting.

Dr. Godding. I would like to ask Dr. Andrews, Mr. President, if the publishers of the Journal of Insanity are willing to publish the minutes of the meeting as furnished by the Secretary, the report taken by the official stenographer, and upon what terms they would be willing to publish them?

Dr. Andrews. The Proceedings of the Journal are as full as those presented by the Secretary, and they are furnished at a very early period, generally in the July number, and without expense to the Association. If the members of the Association would like to receive extra copies of the report, they would have simply to notify the editor, and they could have as many copies as they desired.

Dr. Blackford. I second Dr. Andrews' motion.

Dr. Andrews. As the Proceedings are now printed in pamphlet form, they are not kept together, and in view of the fact that the members all have the Proceedings in the Journal of Insanity, it would seem to me a wise thing to adopt the Proceedings as there given, as the official Proceedings of the Association.

Dr. Godding. I would like to ask through you, Dr. Andrews, in the absence of Dr. Blumer, if the Doctor is prepared to accept the Proceedings of the official stenographer of the Association for publication in his JOURNAL?

I do not like to bring any accusation against Dr. Blumer when he is not here, but those of us who were present at the meeting last year will remember that we took a formal vote that Dr. Blumer's paper should be published, but it has not yet appeared.

Dr. Andrews. The Journal of Insanity has a stenographer here, and has had at every session of this meeting, and will be prepared to furnish a report of the Proceedings very soon, probably in the July number.

Dr. KNAPP. I would like to ask if Dr. Blumer will publish the transactions as given by the official stenographer of the Association?

Dr. Andrews. In reference to that I would say that the Journal has its own stenographer, but I do not think there would be any objection to that arrangement, provided that the stenographer of the Association could get out his minutes in time, so that they could be published in the July Journal.

Dr. Curwer. In reference to the delay in publishing the Proceedings, I would say that the members themselves are to blame for the delay. The report is sent out as soon as received by the Secretary, but it is delayed week

after week, and I have to write time after time for the remarks, and I sometimes have been compelled to revise the remarks myself and have them in decent shape. The gentlemen say things here which they afterwards think they never did say, and therefore when I publish the minutes, I try to have them read as the gentlemen would like to have them read, and not what I know would be contrary to the opinions held by the members themselves.

Dr. Andrews. It is a difficulty that the Journal has always had, one that the Secretary has always had, and a difficulty that will always be with us. The Journal has heretofore always published a good report, and, therefore, I would move the following resolution:

That the Proceedings of this meeting be published in the JOURNAL OF INSANITY, and that we by that means avoid the expense of republishing them in separate form by the Secretary.

Dr. Godding. It seems to me that as we employ a stenographer and pay him for reporting the sessions of this meeting we ought to make use of his report. I suppose the Journal has an official stenographer here; we have also a paid stenographer at this meeting. I think, therefore, that the official report from the Secretary and stenographer should be prepared and compiled for publication.

Dr. Andrews. I did not intend to cut off the pay of the official stenographer, of course. He is employed here and should be paid for his work, at least for this meeting; but it would save him the trouble of writing out all his notes, when they might as well be published by the Journal of Insanity.

DR. CLARK, the President. You have heard the motion made by Dr. Andrews.

Dr. Godding. It occurs to me that we are throwing entirely aside the question of whether the Proceedings shall be published as furnished by the Secretary. I will second the suggestion of Dr. Andrews, if the Journal will publish the report furnished by the Secretary. It seems to me that if we have a Secretary of our Association, one of his duties, if not the principal one, is to prepare a record of the Proceedings of the Association. Whether he has one or two stenographers is immaterial, but it is through the Secretary we should receive the report.

Dr. BLACKFORD. I would move that the Secretary be requested to furnish the Proceedings to the JOURNAL.

Dr. Andrews. The delay will really take away all the advantage which I proposed to derive from this motion.

Dr. Eastman. I would move an amendment to Dr. Andrews' Journal proposition, that it be the official report of the Association furnished by our Secretary.

Dr. Andrews. I shall then withdraw my motion entirely.

Dr. Eastman. I move you that the report of this meeting be published in the Journal of Insanity, as furnished by our Secretary, and that the official report be not published.

Dr. Godding. I would ask if Dr. Andrews would speak for Dr. Blumer in that respect?

Dr. Andrews. No, sir. I cannot speak for Dr. Blumer. If the Association does not choose to accept the proposition as made, I shall withdraw the

motion entirely. If it could be carried as I made it originally, I should like to see it carried.

Dr. Knapp. I do not certainly wish to impress my ideas upon this Association, if they see fit to reject them. I think that we ought not to accept the report of an unofficial stenographer as the report of this meeting. Why not take the newspaper reports, as we have already received them? They have been very good reports, and we might as well accept them as to accept the report of an unofficial stenographer. We ought to have an official report of the transactions of this meeting, one upon which we can rely as being correct and full. The only way in which we can get such a report is to take the official report of the Secretary, as taken by the stenographer.

Dr. CALLENDER. I move that the whole matter be laid upon the table.

Dr. STONE. I rise to a point of order, that is, that an original motion can not be withdrawn without the consent of the one who offered the amendment, until after it has been acted upon by the Association.

Dr. Callender. The question before the house is the question to lay the matter on the table.

Dr. Eastman. In order to satisfy the gentleman, inasmuch as I made the amendment to Dr. Andrews' motion, I withdraw my amendment. That leaves the matter clear.

Dr. KNAPP. With all due respect to the gentleman, I insist that I offered that amendment myself.

Dr. Brush. Mr. President: I should like to ask if the question to lay the matter on the table is debatable? The question is on the motion to lay the matter on the table.

Dr. Callender's motion to lay the matter on the table was then carried.

Dr. Blackford. I suppose the matter now is in statu quo.

Dr. Bryce. Mr. President: As the Chairman of the Committee on Resolutions, I would ask the indulgence of the Association, and request that they hear the report of that Committee now, as I have to leave on the train in half an hour. I would not ask for this change from the regular order of business, except for the fact that both the other members of the Committee are absent. If I can obtain the consent of the Association to read it now, I will do so.

Dr. Blackford moved that Dr. Bryce be allowed to read his report, which was as follows:

At the close of this, the forty-fifth annual meeting of the Association of Medical Superintendents of American Hospitals for the Insane, it is a privilege, as well as pleasure, to review some of the circumstances which have conspired to make our meeting so pleasant and profitable: and to express, in this official manner, our grateful appreciation of the many courtesies that have been extended to us as a body.

Our meeting has been held under circumstances exceptionally auspicious and inspiring. Washington, the capital city of our common country—replete with the most inspiring traditions as well as historic interest—was well chosen as our place of meeting. It is not only conceded, by those most competent to judge, to be the most beautiful city of the world, but it reflects in an eminent degree all that is most progressive in the world of letters, art and true-

scientific culture. The seat of our National Government, and the home of its President and associate officers, the abiding place of a larger portion, perhaps, than any other city, of the great men whose achievements, both in war and neace, have made our country the greatest among the nations of earth, and nestling in the midst of scenery and other environments well calculated to awaken the patriotic pride and enthusiasm of every son of the Republic, it would be strange indeed if we should fail to respond to the influences so grandly inspiring and refreshing.

The results of our meeting, too, have been such as to encourage us in the established methods and ultimate purposes of the scientific body to which we belong. There has been no departure from our past successful efforts to make the Association a representative body in all that pertains to pathological and nsychological research. The papers read, and the discussions thereon, show commendable progress in the solution of the very difficult and complex problems which confront us, and give encouraging promise of still better things to come.

While it would be difficult, if not impossible, to embrace in these resolutions the full measure of our appreciation of the many courtesies extended to us by the different scientific and industrial associations of Washington, as well as by many of its hospitable citizens, we must be permitted to mention at least a few of the most prominent, and to express our sincere regret that the limitation of our time precluded the possibility of their acceptance. We refer to the urgent invitations of Dr. Edward N. Brush, Superintendent of the Sheppard Asylum, near Baltimore, to visit that model institution; to Dr. Charles G. Hill, Superintendent, to visit Mount Hope Retreat, Baltimore; to Dr. Henry M. Hurd, Professor of Psychiatric Medicine, Johns Hopkins University, to visit the Hospital of that famous institution in the city of Baltimore; to Dr. John S. Billings, to visit the Army Medical Museum in the city of Washington; to Dr. Wales, to visit the Museum of Hygiene, United States Navv, also in the city of Washington.

While it was found impracticable to accept these invitations as a body, we are pleased to record the high encomiums of individual members of the Association who found time to avail themselves of the opportunity thus afforded them.

To say that we were pleased with our visit, in a body, to St. Elizabeth's, the Government Hospital for the Insane, under the management of Dr. Godding and his accomplished corps of assistants, would convey but an inadequate idea of the feeling of satisfaction and delight which attended our visit to this splendid institution. The completeness of its appointments, as well as the thoroughness and efficiency of its management, challenge our highest respect and admiration. This hospital is an honor to the wisdom and humanity of the United States Government, and reflects the highest possible credit upon the veteran alienist who for so long a period has been its directing head as medical superintendent.

To the proprietors of the Arlington Hotel we are indebted for the free use of the new banquet hall as a place in which to hold our sessions; and also for the unremitted attention and considerate service extended to us as guests of their elegant hostelry.

Of the Committee of Arrangements we cannot say too much in praise for their judicious oversight in the arrangement of the programme, both for the business and pleasure of the members of the Association. They have left nothing undone, in either of these respects, to make this meeting both pleasant and profitable, and have established a precedent to those who shall undertake such duties in the future of what a well-directed zeal and energy can accomplish.

The excursion to Mount Vernon, under their direction and supervision, was especially timely and well-planned, and we shall carry with us as long as life lasts the tender and ennobling memories which these hallowed scenes so vividly revived.

We recognize in the public press a faithful coadjutor and potent factor in the march of progress and the search for truth, and we desire to record our sincere thanks to the newspapers of Washington for their full and carefully prepared reports of our proceedings, and for kindly notices of individual members of the Association.

On motion of Dr. Blackford, seconded by Dr. G. H. Hill, the report of the Committee on Resolutions was accepted.

Dr. Clark, the President, announced that the chair had selected the same Committee of Arrangements as that of last year, with the exception that Dr. Brush was appointed in place of the late Dr. Gundry.

Dr. FISHER. Mr. President: I believe the obituary notices are next in order, and before they are reached, I would like to mention a matter which is appropriate in that connection.

Yesterday a telegram was received announcing the death of our respected confrère, Dr. J. P. Bancroft, of Concord, N. H.

About a year ago I saw him, while presiding over a session of the New England Psychological Society, have his first attack of apoplexy. He was stricken down in the presidential chair, while discussing a paper, and without a moment of unconsciousness he went on with the discussion. I think he was hemiplegic at the time. He insisted upon putting a motion to adjourn the meeting. Since that sad event he has been more or less of an invalid, living quietly at his home, but unable to go about. Two weeks ago he had a slight return of his trouble, and now he has passed away.

I move that the Secretary be instructed to send a telegram of condolence to his son, Dr. C. P. Bancroft, expressing the regret of the Association at their loss, and their sympathy with his family.

Dr. Godding. As one of the older and earlier assistants of Dr. Bancroft, I rise to second the motion of Dr. Fisher.

We have lost one of our strongest minds. Those of you who heard his paper three years ago at Newport, I think, were impressed with the feeling which I had, that having retired from active hospital labors in New Hampshire, we should hereafter be favored with more from that pen and that mind that has now gone from us forever.

It was my pleasure in 1859 to enter the hospital at Concord, New Hampshire, the beginning of my labor among the insane. For three years I was with him as his first assistant. I came to know him thoroughly, both as a man and physician. His breadth of judgment and his untiring industry made

him eminently successful in the management of his asylum. In later years I have known less of his career, but I have always read with interest anything that came from his pen. Certainly, though perhaps taking a less active part in the Association, he was the peer in mind of any that I have met in the direction of its work. Death has certainly gained a rich harvest in our Association. I note the number of cases that we have to notice, and I purposely make my remarks brief. Others of our Association who have been with Dr. Bancroft longer than myself will follow me, and I will only take the honor of seconding the motion which has been made by Dr. Fisher.

Dr. EASTMAN. I rise for the purpose of adding my brief but heartfelt tribute to the memory of Dr. Bancroft.

It was my good fortune—and it is a pleasant remembrance—to begin my work in our specialty at the New Hampshire Asylum under his superintendency. He was especially clear and comprehensive in his grasp of the principles which underlie the care of the insane, and particularly conscientious, efficient and successful in applying them to the work in hand. Whatever of success I have attained in my career has been due in a large degree to the training I received while on his staff.

It has been my privilege to hold very close personal relations to Dr. Bancroft ever since my service with him, and in his death I have lost not only my highly esteemed preceptor, but one of my best and most valued friends, and my feeling is that of personal bereavement.

Dr. Brown. I wish to add a few words to what has been said as a tribute to Dr. Bancroft. It was my good fortune to have been associated with him for a period of nearly thirteen years. I entered the asylum as an assistant physician in 1865, and remained with him until 1878. I will say that I regard Dr. Bancroft, taking him all in all, as one of the ablest men I have known in our specialty. He was a man who averaged well all round. He had attained eminence in his profession as a general practitioner before he took charge of the asylum at Concord. He was a good physician and an able manager of an asylum. He was exceptionally able in his ability to provide for the individual wants of his patients, and he especially excelled in hospital architecture. It is well known to many of the members of this Association that when he took charge of the asylum in 1857 it was very defective in its construction, but during his charge of it he built it over almost entirely, and at the present time it is one of the best hospitals in New England for its home-like comforts and convenience of administration.

I think this Association has lost one of its ablest and best members in the death of Dr. Bancroft.

Dr. Fisher's motion in relation to the death of Dr. Bancroft, seconded by Dr. Godding, was then unanimously adopted.

Dr. L. F. Dozier read a biographical sketch of the late Dr. E. T. Wilkins. The sketch of Dr. J. B. Jones by Dr. Callender was not read, in explanation of which Dr. Callender spoke as follows:

I must ask the indulgence of the Association in this matter. I have been engrossed with work for several weeks past and did not observe until I examined the programme that I was appointed to read an obituary notice of Dr. Jones. I would only say that if the Association desires it, I will prepare

a memorial upon the subject and will forward it to the Secretary for publication in the Transactions of the meeting.

Dr. Chapin. I wish to remind you and the Association that we are to take the train at 12.15 for Baltimore. I regret very much that I cannot stay here to listen to all the papers. I would suggest that all further business be suspended and the papers be printed in the Proceedings.

I regret that time does not permit some appropriate allusion to be made to the death of our late associate, Dr. Gundry. It seems that some fitting memorial should be presented here and due notice taken of the death of such a valued member of the Association. I would ask that you assume the authority to appoint Dr. Hurd, who was well acquainted with the late Dr. Gundry, as a suitable person to prepare the memorial and present it to the Association.

I move that any further papers to be read this morning be suspended; that the other obituary notices that were expected to be read, be not read on account of the shortness of the time, but that they be printed in the collection.

The motion was carried.

Dr. Clark, the President. I will ask Dr. Hurd if he will be kind enough to prepare a fit obituary of the late Dr. Gundry, and that obituary, I suppose, will be published in the transactions.

The Association then adjourned to meet at Washington, D. C., in May. 1892.

[Stenographically Reported for the American Journal of Insanity by Rees P. Pughe.]

## THE ADVANCEMENT OF THE WORK OF THE AS-SOCIATION, AND THE ADVANTAGES OF A BETTER ORGANIZATION*

BY EDWARD COWLES, M. D., Superintendent of the McLean Asylum, Somerville, Mass.

Forty-seven years ago our Association was founded by the thirteen members whom the growing years give us increasing delight to honor. It was a fortunate event, and we like to speak familiarly of the founders as the "original thirteen;" there was perhaps good fortune in the fact that it was not the "original twelve" or some other unlucky number.

At the first meeting in 1844 it was decided that the Convention should be styled "The Convention of Medical Superintendents and Physicians of the Asylums and Hospitals for the Insane in the United States." This was soon reduced from its nineteen words to eleven, as our name now stands,—almost as many words as there were members in the beginning; but we read in that title not only their love of truthfulness and explicitness of statement, but a portent of the magnitude and importance to which the Association has now grown. It is certain also that every one of us would defend the proposition that the Association has "a good name," even though many of us may be puzzled to remember precisely how to write it. At that first Convention it was also decided, as to its membership, that it should consist of the thirteen members named, "and of such other medical superintendents and physicians of asylums or hospitals for the insane as may hereafter be admitted by a vote of the majority of the members of the Convention."

No one can think of those men,—our fathers in the noble work of caring for the insane in this country,—without gratitude and reverence; nor can we mention them without remembering with thankfulness the one survivor of their number who, though he can be with us only in spirit, observes our proceedings with his old-time interest and devotion to the cause; to him we offer our tender regard and best wishes.

^{*}Read at forty-fifth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, held at Washington, D. C., April 27—May 1, 1891.

When we turn to our library shelves and, in the generous row of forty-six complete volumes of the American Journal of INSANITY, trace the development of American psychiatry, we note the faithful attendance at the annual meetings,-the earnest and careful discussions of vital questions of public policy in the care of the insane,—the paramount humanity of the consideration for their welfare,—the interest in the special therapeutics of insanity, -the entertaining and instructive reports of observations in foreign asylums,-the store of data relating to our work at home and abroad, already taking on an historical value in the literature of our specialty,-the progress of the great reform inspired by the noble philanthropist, Dorothy Dix, whom, did we live in earlier times, we would make our patron saint,—the rapid increase in the number of hospitals, and in our membership,-the stages of what may be called the age of the hospital construction that we have only recently passed through to the beginning of the present stage with its new ideals, - and lastly the hopeful and promising indications that there is no discouragement in American psychiatry, but that it is responding to the inspiring stimulus of modern progress in neurology and all the branches of scientific medicine that are collateral to our work.

Thus the JOURNAL OF INSANITY forms a most complete and substantial record of the work of the Association and its members for the nearly fifty consecutive years of its existence. We should begin to realize better the importance of the service that has been rendered by such a publication, made especially valuable by its continuity; and what its value has come to be from its modest beginning by Dr. Brigham when he found occupation for his patients in the printing of the first numbers of the Journal in 1844. The Utica Hospital Managers have earned the lasting gratitude of the whole country for having sustained so long such a contribution to the great advancement that has been made by the Association. We know well how essential was the service of Dr. Brigham's successors in that work, and there is nothing more significant of the general advancement of the Association than the enlargement and growing excellence of the JOURNAL as it is to-day. It has well fulfilled its aim to be an "American" journal; and just as its national character has made it valuable as a record of the past, so the improvement under its able editorship is largely due to its being made more broadly representative of our national interests.

In all these matters it is the law that we must be progressive,—
if we stand still it is to fail and die,—for the world will move on
without us. At the very utmost,—if we open our eyes to the true
philosophy of our work,—we can only do our best in our day and
generation; and we should plainly see that our "best" must become in turn the material for the builders of the future to use,
improve, or reject. The best heritage we can hand down to those
who come after us is a spirit of liberal catholicity to progress in
our work. We should absolve them from hampering traditions,

and trust the conservation and perpetuity of what we have well
done to the force of recorded facts and the tests of experience.
Above all we should content ourselves, as far as the formalizing
of our action goes, with handing over to them an organization of
our Association of which the essential facts shall be strength and
stability, with that inherent power for good work that sustains itself by excellence of what it does.

All who are familiar with our history during the past ten years will remember the notable meeting in 1887. A comparison of the work of that and the subsquent meetings with those before, shows that the Detroit meeting, under the lead of Dr. Hurd, marked an epoch in the history of the Association; every year it appears plainer that not only has more work been done at our annual gatherings, but it is gaining a vigor and character that betokens future improvement under the inspiration of the new methods. The growing attention to the actual work of the meetings,—the enlisting of the active interest of the vounger members,—the scientific quality of the newer contributions, -and the widening scope of the subjects studied, -all these plainly foretell the possibilities of the future, if due care is taken to foster this rising movement toward the further advancement of our work. It is evident that the time is ripe for doing much that can be judiciously done to promote such advancement. Nothing happens of itself. but sometimes there are favoring conditions and opportunities. With the happy results before us so far gained from the new departure at Detroit, it is well to consider what may now be further done in the same direction. There has been for some years the occasional expression, among the members, of a feeling that something should be done like this advancement we have lately witnessed. There was advancement before, as we have seen, but each period of time demands fresh effort for progress. Criticism from without the Association has not been lacking as to the way we have used our growing opportunities. The recent quickening of our activity has been stimulating to our professional zeal. In view of these facts, and in response to the invitation of our Committee of Arrangements to open the discussion of the subject now before us, this paper has been prepared with the purpose of formulating some generally expressed views of the members in regard to the present condition of the Association, and to indicate also what it is believed can be done to carry out those views and desires for the accomplishment of the objects to which Dr. Stearns has called our attention in his Presidential Address.

The prime object of the Association,—it goes without saying,—is the promotion of the study of all subjects pertaining to the care and treatment of the insane. It has been said that it is at all times the duty of its members to do all that can be done to give strength and stability to the work of the Association. There is an undoubted wealth of strength in its membership, but, as we have seen, it is only by proper coördination of its forces, through a systematic organization and method, that its strength can be developed and put to use. Then it is exactly by maintaining such a method and system that we gain stability.

As to our strength in membership, one has but to consider the difference between thirteen superintendents forty-seven years ago and our present numbers. There are now on our list:—

Superintendents of public and incorporated hospitals and	
asylums	132
Past superintendents of such institutions	19
Heads of private establishments, &c	18
Assistant physicians of five years' service or more	102
Total	971

A few of the past superintendents are heads of private establishments, but are not included in the number given of that class. There is doubtless quite a number of men who have been superintendents, especially those for short periods, who are not named in the printed list.

The increasing number of private houses for the care of the insane throughout the country raises some serious questions as to membership.

There are probably more assistant physicians than those reported, and included in the list, who are eligible under our present rule. It is easy to see that a simplicity of organization suitable at first, is quite inadequate now, for bringing out the best work that the Association can do, and for protecting the interests that have come into its keeping. Let us consider some of the things that even now suggest themselves as good to be done, and what conditions will promote the doing of them.

1. The practical value of written contributions is largely increased by their being put into print and made available for convenient reference. The quantity and quality of recent work shows that there will be sufficient material of scientific value to make a respectable volume annually, of selected papers worthy of such preservation. Such a volume of selected communications might be published along with a full report of the proceedings of the annual meeting or apart from such a report. This need not interfere with the publication of such papers elsewhere if desired by the writers, but the collection in our annual volume would serve a convenient purpose.—be a dignified representation of the best work of the Association, and stimulate the production of articles of a high order of merit that such a mode of publication would tend to promote. With due regard to economy such a volume would be made up of reprints from the JOURNAL OF INSANITY, and be published in connection with it.

Among the advantages to be derived from the regular annual production of publications that will have a definite value, there may be mentioned the special one that it will increase the value of membership in the Association. The assistant physicians will always be at a disadvantage as to the privilege of attending the meetings. Should it be so arranged that those who preferred could be "associate members,"—they being required to pay less in annual dues than "active" members, they would get a fair return in receiving each his share of the publications. It is obvious that this would tend to the increase of interest in the work of the Association. It is equally obvious that the most valuable contributions of full and precise clinical observations will come mostly from the men who are in closest constant relations with the patients; and that anything which stimulates the exercise of such precise methods promotes the best of professional training.

Other publications could be undertaken, such as, for example, the "Manual for Post-Mortem Examinations" that is now being prepared and is to be printed at the expense of the Association. Special investigations could be made in ways that would be practi-

cable under proper organization, which would involve some expense for the collection, and preparation of data, and the special publication of results. The providing of a systematic way of doing such things will stimulate the doing of them. There is reason to believe that by suitable management, the publications could be largely improved, in respect to their value, credit to the Association, and enlargement of its influence. At some time in the future it may be thought wise to publish a monthly or quarterly journal. In that event, with a responsible organization provided, we would be prepared to engage in such an undertaking.

In regard to our large and growing membership, it is beginning to be felt that there should be some better regulations as to eligibility and proper credentials; and there should be proper provision for the termination of membership in certain cases.

It ought not to be difficult to determine upon a few definite fundamental principles, in all these matters, as the policy of the Association. But the maintaining of these principles, and the plan of enlarging the work in such ways as have been suggested, would introduce much detail requiring methodical attention. It would not only be desirable but needful, in order to maintain such a policy as should be settled upon by the Association in the management of its affairs, that there should be a representative body of control, that shall be impersonal, impartial and rightly balanced as to changes of its members to secure stability for the protection of the interests involved, against action liable to be unstable and shifting from year to year, however well-intended it might be.

2. The conditions that will promote the doing of such larger and better work may be provided, probably, by making additions to the present limited provisions of our organization, which are good as far as they go. It is desirable to be reasonably conservative in these matters while we may give to the scientific spirit the necessary freedom to prove all things and hold fast only that which is good.

The offices of President, Vice President, Secretary and Treasurer may of course remain practically as at present. But in respect to the regulation and useful working of affairs, there should be an Executive Committee or Council, constituted of a sufficient number of elected and representative members,—perhaps six or twelve in number,—to be joined to the regular officers already named, who would be ex-officio members of the council. If a few members of

the council were changed each year it would maintain the representative character of that body and still give the requisite stability of policy, with due control on the part of the Association.

There should be a revision of such of our present rules as now serve for by-laws, and additions to complete them. The council should be responsible enough to hold the property and funds of the Association.—collect dues from members.—manage all matters relating to publications, &c., &c., and, in general, be empowered to act effectively and promptly in conducting all business details. We have only to consider our large membership to see how easy it would be to raise ample funds by a moderate annual tax upon all the members instead of as at present,—the collection of money from only those who are able to attend the meetings. With a fair contribution from every member there would be money enough to do many excellent things. A better organization could be made to promote the credit and influence of the Association in various ways,-to aid in doing our share in the advancement of its scientific work that belongs to our own time, -and to afford the material element that is needful for the success that must come from the employment of adequate business methods required in any undertaking. Among the good things to be gained there would be, not least of all, the promotion of good fellowship among the members, that would follow the satisfactory results of our united labors.

In presenting the foregoing suggestions it is right to say that there seems to be no desire on any part to reflect invidiously upon any of the good and honest work the Association has done in the past;—it is to hold fast the good that is in that work,—to lift ourselves up to the need of the times, and the duty our great opportunities impose upon us. It is as though we were to say in a generous spirit, and with loyal respect to those who have gone before us, let us take counsel together to see what we can do to enlarge our usefulness. To this end and to formulate the matter for proper consideration and action it is now suggested, that if it be the wish of the Association to entertain this matter, this discussion may lead to the appointment of a committee to examine the whole subject and make a preliminary report to the present meeting.

## ABSTRACTS AND EXTRACTS.

Case of Epilepsy Cured by Antipyrine.—McCall Anderson, in the American Journal of the Medical Sciences, for May, 1891, reports an interesting case of epilepsy of two and a half years' duration, occurring in a boy nine years old, which he treated with antipyrine. He commenced with five grain doses three times a day and increased it by one grain in every dose each day. When twenty-five grains had been reached it was continued without increase for one week and no fits then occurring, was reduced to twenty grains. The reduction in the amount of the remedy was followed by a seizure, and the dose was therefore again increased to twenty-five grains. The patient was discharged, after three months' treatment, as recovered, but the drug has been continued since and no fits have occurred.

Dr. Anderson says: "That the cessation of the fits was entirely due to the drug is shown by the fact that they were arrested when the dose of antipyrine reached twenty-five grains, reappeared when it was reduced to twenty grains, and finally ceased when twenty-five grains were again administered. For a boy nine years old the dose was a large one; but as regards dosage, it should never be forgotten that each case must be treated on its own merits, and that we must not be tied down to regulation doses. The rule which I invariably follow in such cases is to begin with a small dose and slowly increase, either until the medicine begins to disagree, or until the symptoms begin to yield, the patient being, however, carefully watched during the whole of the treatment. It is also of the utmost importance in cases of epilepsy to continue the treatment for a long time after all trace of fits has disappeared.

I was led to employ antipyrine from the conviction that epilepsy is a pure neurosis, from a knowledge of the powerfully calmative influence of antipyrine upon the nervous system, and from the observation of its wonderful effects in many cases of chorea, another form of neurotic affection."

W. M.

INFLUENZA AND MENTAL DISEASE.—Dr. G. Cantarano has made a study of the effects of influenza on the insane and in the production of insanity, which appears in La Psichiatria, VIII, 1 and 2, p. 158. He finds that the insane are apparently less liable to the infection than the sane. The disease, as a rule, took its ordinary course, though in rare cases he observed the symptoms of exaltation. He reports the clinical histories of three or four cases in his practice amongst the insane. He finds certain things apparently demonstrated. First, that any of the clinical forms of insanity may follow influenza; secondly, that the psychic disorders thus apparently due to the grip, ordinarily occur in subjects in whom exist either an individual or hereditary psycho-organic degeneracy; third, that these cases, with ordinary care, usually progress favorably, but in a few cases collapse and death have occurred.

What the author reserves his opinion in regard to, is the exact causal rela-

tion of the influenza to the disease. He holds it as inexact, or at least dubious, to refer to this infection the whole of the causation. Indeed the proportion of cases of insanity is exceedingly small, as compared with the whole number of subjects of the epidemic.

H. M. B.

URALIUM.—Tambroni and Stefani, La Psichiatria, VIII, 1 and 2, conclude the publication of results of extended therapeutic investigations on this drug, which is a compound of chloral and urethan combined according to their respective atomic weights. They speak highly of its hypnotic action, and they find that the best effects are obtained from doses of from two to three grains. They find little difference from the effects of the medicine in the different forms of insanity, though it seems to be a little more adapted to excited than to depressed conditions. The sleep it causes commences usually within an hour of its administration, and lasts three to seven hours. It is rather light, and comes very near to physiological slumber. Uralium has, like sulfonal, the property of continuing its hypnotic action for more than one night, and it may be administered for a long time to the same individual without causing serious disturbances, and without engendering a tolerance of the remedy. In a few cases the patients complained of a certain feeling of weight in the head upon awakening.

The authors conclude as follows: "We are able to say that uralium in doses of two to three grains, has a considerable hypnotic value, not inferior to that of chloral, and superior to that of paraldehyde, urethan, hypnone, hyoscyamine, and perhaps to that also of sulfonal; that its use is free from any inconveniences; that it may be protracted over a long period, and that it should be classed among the better hypnotics."

H. M. B.

Topoalgia.—At the congress of learned societies in Paris, Sub-section of Medical Sciences, 25th of May last, (reported in the *Progrès Médical*, No. 22,) M. Blocq made a communication in regard to a new clinical syndrome, of which the following are the conclusions:

1st. There exists a syndrome ordinarily dependent on neurasthenia, and presenting special peculiarities by reason of which we propose to differentiate it under the title of topoalgia.

2d. Topoalgia is characterized by the patients who are affected with it, suffering either principally or exclusively from pain localized in a varying region, but not in relation with a territory anatomically or physiologically delimited. The painful spot may exist by itself and thus constitute the whole disease, but more frequently it co-exists with neurasthenic symptoms which indicate its morbid parentage. The progress of the disorder is very slow. It lasts for months, and even years, and very frequently ends in recovery. The diagnosis should be made between it and the neuralgias of hysterical and hypochondriacal subjects.

3d. The causes which ordinarily preside over the development of topoalgia originate in neurasthenia, but they are specially influenced by traumatic or local affections.

4th. It seems probable that the topoalgia syndrome is the clinical manifestation of the fixedness of an image belonging to the domain of the sensibility, analogous to the fixed ideas in the domain of intellectuality, of which the psychological mechanism differs from that of auto-suggestions of pain in hysterical patients, and the emotional obsessions of the hypochondriaes.

5th. A treatment based upon this theoretical conception which appears to us to give the best results follows two indications: to re-establish the psychic equilibrium and to mobilize the fixed sensory image. This last object has been attained in some cases by special maneuvers in electrization.

Secondary Microbic Infections in Mental Disorders.—M. Klippel, Jour. de Méd. de Paris, May 24th, reports a case of chronic terminal dementia in which death suddenly occurred with symptoms of meningitis of three days' duration. At the autopsy there was found, together with the symptoms of purulent meningitis, an old patch of softening in the right temporal lobe of the size of a hen's egg, with sclerosed walls and all the evidences of its having existed for a long time. The lungs, on examination, showed moderate congestion with preservation of the normal crepitus. There were no patches of hepatization discovered, and, if any existed, they must have been small and scattered.

Bacteriological examination revealed in the purulent layers of the meninges, numerous microbes of the spear head type touching by their finer extremities and surrounded by a colored aureole. Their very characteristic form and their numbers demonstrated the fact that here was a suppuration due to the pneumococcus.

The old softening had probably, during life, caused the symptoms of the mental disorder. The suppuration was a secondary acute disorder due to a special microbe. There was, however, evidently a relation between the two lesions, the first having gradually created the conditions favorable to the development of the other. The absence of pneumonia or broncho-pneumonia to give rise to the pneumococcus leaves us to infer that the latter was primarily developed in the brain. The patch of molecular disintegration in the right temporal lobe, and covered like the rest with a purulent layer, was undoubtedly the point of departure of the secondary infection. The pneumococci carried there by the circulation, became developed at this point of least resistance, and being diffused over the surface of the brain, found a favorable culture medium in the subarachnoidal spaces. The case is of interest as illustrating the possibility of acute secondary infections of the already diseased brain in insanity.

INFLUENCE OF THE TROPHIC CENTERS OF THE SPINAL CORD ON THE DISTRIBUTION OF ATROPHY IN SOME FORMS OF TOXIC NEURITIS.—Brissaud concludes from the liability of particular nerves to be affected in saturnine and alcoholic neuritis, that the degeneration is due to impairment of the trophic power of the spinal nuclei of those nerves, due to alterations in the cells which escape our present means of investigation. He is confirmed in this opinion

by the fact that degenerative changes have been found in the nerves supplying the paralyzed muscles in cases of hemiplegia.—Arch. de Neurol., March, 1891.

Hysteria Simulating Weber's Syndrome.—The case furnished the subject of a lecture by Charcot, February 24, 1891. The patient, a girl, aged 19, presented ptosis of the left eye with right hemiplegia. The face was not paralyzed, and the movements of the eyeball were preserved. The lecturer's first impression was that the case was one of the forms of alternating paralysis described by Weber in 1863, in which the third nerve is implicated with the muscles of the opposite side of the body, in consequence of lesion of the cerebral peduncle. More careful investigation showed that the ptosis was spasmodic. This, taken in connection with the exemption of the face and of the remaining branches of the third nerve, together with anæsthesia of the paralyzed side and some points in the history of the case, led him to the conclusion that it was one of hysteria.—Ibid, May, 1891.

EFFECTS OF SENSORY STIMULI ON THE HALLUCINATIONS OF HYSTERO-EPILEPSY.—Guinon and Woltke experimented on two hystero-epileptics during the stage of "passional attitudes." They found that although the patients were entirely oblivious of what was said to them, the postures taken by them were affected by sounds, light transmitted through colored glass, sensations of heat and cold, tastes and odors, and that their recollections of the hallucinations showed that they were suggested by the sensory impressions. Thus, in one case, red glass caused the patient to see blood; yellow glass to be walking in sunshine; blue glass to see her mother in heaven; the smell of Cologne water made her imagine that she was in a flower garden; pricking of the chest, that she was bitten by a serpent, &c. They call attention to the similarity of this phenomenon and the influence of sensory stimuli on the hallucinations of the cataleptic stage of hypnotism.—Ibid.

Is "Katatonia" a Distinct Clinical Form of Insanity?—Serbsky, of Moseow, after discussing the various symptoms described by Kahlbaum, comes to the conclusion that neither the separate symptoms nor their association warrants setting them apart as a distinct disease. In cases classed as katatonia, some of the symptoms described by Kahlbaum may be lacking, and the order of their occurrence is variable. On the other hand, the symptoms of katatonia may be present, more or less completely, in many different forms of insanity. Among the psychoses which may present more or less the clinical picture of katatonia he enumerates the following:

- 1. Acute dementia.
- 2. Acute amentia (confusional insanity.)
- 3. Acute paranoia.
- 4. Melancholia attonita.
- 5. Chronic paranoia.
- 6. Progressive paresis.

- 7. Some periodical psychoses.
- 8. Hysterical insanity.
- 9. Secondary dementia, including hebephrenia.

He also disagrees with Kahlbaum's interpretation of dumbness, verbigeration, resistance and stereotyped movements as spasmodic symptoms. Verbigeration, he thinks, is accounted for by an impulse to talk with paucity of ideas, and the other symptoms are probably due to delusions.—Centralblatt f. Nervenheilk., April, 1891.

W. L. W.

Pathogenesis of Circular Insanity.—Schubert reports, in the Neurolog. Centralblatt, a case in which asthmatic attacks were repeatedly observed during the subsidence of maniacal paroxysms. The asthma he found to be of nervous origin—not due to organic changes in the lungs. Assuming it to be an angioparalytic symptom, he finds in this case a confirmation of Meynert's theory that circular insanity is due to alternating states of excitability and exhaustion in the vaso-motor system.—Ibid. w. l. w.

Forensic Significance of Hypnotism.—Van Deventer, of Amsterdam, reports the case of a hystero-epileptic girl, twenty years of age, who was visited, shortly after her admission to the Buiten Hospital, where she had been previously under treatment, by an officer of a court of justice on account of a charge of indecent conduct against a physician. There was proof that she had visited his office, and she claimed that while there she fell asleep during certain manipulations, which she could not clearly describe, and awoke under circumstances that made it evident what had taken place.

In view of these charges, it was thought best to try the effect of hypnotism upon her. She was found very susceptible to its influence, and to suggestions of various sorts while in the hypnotic state, of which she retained no recollection after waking. On two occasions, however, after hystero-epileptic attacks, she related as facts things that had been suggested to her during the hypnotic state. Her recollection of the supposed occurrences gradually became indistinct, and this was also the case in respect to the criminal charge, of which she soon forgot particulars which she had circumstantially described in her original statement. As it appeared, on careful inquiry, that she had first spoken of the alleged indecent assault after a hystero-epileptic attack, the conclusion was that it was a case of false recollection.

The author claims to have met with temporary successes in the treatment of alcoholism, by means of hypnotic suggestions, but found that the effects gradually faded away, and the patients returned to their old habits.—I bid, May, 1891.

W. L. W.

DISTRIBURION OF NERVE-CELLS IN THE HUMAN SPINAL CORD.—Hoche, of Heidelberg, claims to have found a hitherto undescribed group of nerve-cells in the spinal cord, extending from the middle of the lumbar enlargement to the conus terminalis. The cells, which are of the largest size, and of oval shape, are found in small numbers between the anterior nerve-roots at their point of exit from the cord, and are thought to be connected with them.—

1 bid.

W. L. W.

NEW METHOD OF STAINING THE CENTRAL NERVOUS SYSTEM.—Ziehen, of Jena, (Neurolog. Centralblatt, February 1, 1891,) recommends the immersion of small pieces of the tissue to be examined in a solution of one per centeach chloride of gold and corrosive sublimate, for at least three weeks, and preferably several months, at the end of which time they can be cut without further preparation. The sections are washed first in alcohol, and subsequently in dilute watery or alcoholic solutions of iodine, cleared and mounted in balsam in the usual way, The nerve and glia-cells and nerve-fibres are colored bluish grey. The divisions of the axis-cylinder process are well shown, and the nucleus and nucleolus of the nerve-cells distinctly visible.— Ibid.

Care of the Insane in Prussia.—An anonymous article in the same journal, commenting on a proposition for a new law in regard to the insane, submitted to the Prussian House of Lords by the Minister of the Interior, reveals a state of affairs which is hardly what would have been expected in that much-governed country. It appears that the existing law is in a chaotic condition as to the respective responsibilities of the kingdom, the separate provinces, the departments, the cities, in regard to the care of the insane, that each is inclined to shift the expense on the others, and that, as a result, the accommodations for the insane are entirely inadequate, and there is no uniformity nor consistency in their management. No census of the insane is given, but the writer calculates, allowing four insane to the thousand inhabitants as the usual ratio in civilized countries, that in 1885 there were 112,000 insane in Prussia, for whose accommodation there were 37 public asylums, with places for 16,323 patients.—Ibid. w. L. w.

Psychoses After Influenza.—Ladame, of Geneva, in a paper read before the Geneva Medical Society, gave a review of the literature of this subject. He found that influenza most frequently gave rise to melancholia and hypochondria, and to asthenic psychoses. It might also serve as exciting cause of other psychoses, as acute mania and delirium tremens. The prognosis is usually favorable.—Ibid.

W. L. W.

INFLUENCE OF PREGNANCY ON EPILEPSY.—Two cases, reported by Guder. In the first, the patient suffered from epilepsy during each of her two pregnancies, and at no other time. The convulsions in the first pregnancy began early and ceased at the time that fœtal movements were felt; in the second, on the other hand, they began with the fœtal movements and continued up to the time of delivery.

The second case had suffered from epilepsy before her marriage. The convulsions have been worse during the earlier part of each of her four pregnancies, and have been less frequent during the latter part of the time. None have occurred during delivery.—Irrenfreund, 1890, No. 7. w. L. w.

TRIONAL AND TETRONAL.—Barth and Rumpel have made clinical investigations on these two substances allied to sulfonal, in the Hamburg hospital, and find that they have a very marked hypnotic action on man. Although in general this effect is very similar to or identical with that of sulfonal, in some cases where the latter had no effect, or very little, these substances produced complete hypnosis. They will, therefore, probably prove advantageous substitutes for sulfonal in cases where it is inactive. On the other hand, they have the disadvantage of being bitter in taste, and therefore less acceptable. No injurious effect was observed from their use beyond those of sulfonal,—persistence of the somnolence and a certain degree of fatigue.

The maximum quantity given was four grams, in doses of one gram. It is advisable that it should be given pulverized and in a large quantity of liquid, and that it should be administered quickly.

Trional (diethyl-sulfonmethylethylmethane) crystallizes in shining plates, fusible at 76° C., soluble in 320 parts of cold water, easily soluble in alcohol and ether. Its taste is bitter.

Tetronal (diethyl-sulfondiethylmethane) crystallizes similarly in brilliant plates, which have camphoracious bitter taste, and is fusible at 85° C., and is soluble in 450 parts of cold water, and readily so in alcohol and other.

The authors' investigations were published in the Deutsch. Med. Wochenschr, 1890, No. 32, and analyzed in the Annales et Bulletin de la Soc. de Mêd. de Gand, from which we make this abstract.

H. M. B.

PATHOLOGICAL ANATOMY OF INSANITY. - Luvs, (Jour. de Mid. de Paris, March 1st.) calls attention to an alteration that he has found in the brains of patients who had for many years been in an excited condition, viz.: the hypertrophy of certain special regions of the paracentral lobules. The paracentral lobe is, as is well known, the point of confluence of the psycho-motor convolution of the cortex and one of the special regions where the psychomotor innervations are specially accumulated. This hypertrophy therefore indicates a focus of continued excitation, absorbing to itself the vitality of the other cerebral regions which are found more or less notably atrophied. In the extreme cases of excitement, with dementia, in which this condition was observed, he claims the subjects are completely absorbed in the hallucination or delusion connected with this hypertrophied region of the brain. The hypertrophy is usually symmetrical in the two hemispheres, but he presented the brain of a patient in whom there was a visceral hallucination that she was inhabited by a tape worm, which completely possessed her, that it became almost her sole idea. She dwelt constantly upon the coming and going of this parasite in her internal organs. Aside from this idea when she could be induced to speak of other matters, she was perfectly lucid in her mind. The brain of this patient exhibited very marked hypertrophy of the paracentral lobe in one hemisphere, that of the other remaining perfectly normal. M. Luys explains by this anatomical arrangement, the patient's clearness of mind coexisting with the delusion-she was insane with one hemisphere of her brain and rational with the other.

THE BLOOD IN HYSTERIA.—Gilles de la Tourette and Cathaleneau give as the results of investigations on ten hysterical subjects, (five men and five women,) the following:

- (1.) That in normal hysterical patients the same wound of the cutaneous integument will supply only about two-thirds as much blood as it would in a healthy individual.
- (2.) That, leaving out cases of anemia and chlorosis, the amounts of hemoglobin, urea, and glucose are in the normal proportion.

These results corroborate the opinion already enunciated by the authors, that the nutrition is not especially affected in normal hysteria.

H. M. B.

GENERAL PARALYSIS.—Dr. Leon F. Arnaud (*Thèse de Paris*) abstract in Gaz. Méd de Paris, February 7th, 1891, sums up as follows: From the examination of over 202 cases of paresis and their comparison with the results obtained by other writers, we feel justified in deducing the following conclusions:

- (1.) The number of cases of paralysis in man increases progressively.
- (2.) This increase is very noticeable for a period of twenty-five or thirty years, or since the disease was very rare, and which gives us apparently a ratio of eight or nine per cent.; furthermore there has been a lowering of the average age of its appearing.
- (3.) General paralysis is frequently met with in a class (laboring classes) generally considered as less liable to it; its predilection for the higher grades of society, especially the liberal profession, has been much exaggerated.

We give these results as only applying to the region of the Department of the Seine.

(4.) In an etiological point of view, and in the cases studied by us general paralysis does not appear to originate more especially from intellectual work than from direct general cerebral strain (chagrins, ambitions, etc.); it seems to occur in subjects, nearly always hereditarily disposed, either from a general overstrain from various and often multiple causes; over-work, usually manual, sexual excesses, irregular habits of sleeping and eating, etc., sojourn in an over-heated atmosphere, or from some accident such as sunstroke or cerebral traumatism.

It is necessary, however, to say that very often any appreciable cause is wanting.

- (5.) The hereditary influence that we have most frequently noticed, is that to congestive tendencies (fifty-three per cent.) An insane heredity is observed eighteen times out of sixty. The alcoholic heredity occupies the last place, nevertheless it is proper to recall some reservations we have made on this subject.
- (6.) In precocious general paralysis the etiological conditions appear to be more readily determined than in the cases occurring in middle life. Heredity, especially to congestive tendencies, plays the principal role. The most common form is primary paralytic dementia.

  H. M. B.

## BOOK REVIEWS.

Second Annual Report of the State Commission in Lunacy for the State of New York, 1890. (Transmitted to the Legislature January 26, 1891.)

This Second Report of the new Commission in Lunacy, still, as regards time, in the infancy of its experience, is only another proof how rapidly, under the education of American Institutions, it is possible for public officials, when they enter upon office, to become acquainted with the specialty they are called upon to administer. This Report, considering the great number of topics it deals with, presents in its three hundred and twenty-five pages a wonderful contrast, in its compact and business-like character, to the enormous Blue Books of English and other foreign Commissions. It may be said to furnish its own raison d'itre-to justify the creation of such a Commission, solely devoted to this the most important, if not the largest, interest in the charitable system of the State. If we look at the proportions to which the inchoate asylum system of fifty years ago has now grown, it would seem obvious that it should be no longer left to the scattered ideas and enterprise of particular localities or particular individuals, but should be harmonized into a consistent and continuous policy which only a State Commission can intelligently supervise. To be sure, there will be some friction, and probably some mistakes, in any attempt to inaugurate such harmonious and consistent policy in the practical details. That is not an unknown feature in legislation itself; and the mistakes of officials are as often due to ambiguous and merely tentative acts of legislation, without either experience or foresight, as to any other cause. There are some points in the new laws, and in the rulings under them, with which we cannot always bring ourselves to agree; but this does not in the least, according to our view, militate against the expediency and value of the State Commission as such, or the desirability of having so vast a system administered on some general principles of uniformity and stability applicable to the whole State. It might, indeed, be unfortunate if such general supervision should burden itself with too much of mere executive and detail work, better left to responsible professional judgment, but it may be confidently hoped that experiment and discussion will soon mollify differences of opinion in the practical working of the new system.

Down to the present time the State may be said never to have had any settled policy in regard to the provision for the insane. The measure known as the Willard Act of 1865 was well meant as a deliverance of an ever growing multitude from the squalor, neglect and abuses of the County Houses, so graphically depicted by Dr. Willard. Dr. Gray and others at that time would have preferred increasing the number of mixed asylums and locating them in separate suitable districts of the State—the policy to which the State has now returned. It is curious to observe how many of the arguments used in this Report are identical with those at that time employed against the Willard Act. But the subsequent powers given to the State Board of Charities, to exempt from the operation of this Act such of the counties as, in their official udgment, made suitable provision for their own insane, was, in our opinion,

only another "new departure," showing the hap-hazard, uncertain way in which State matters have too often been dealt with, although it was doubtless supposed to be necessitated by the rapidity with which Willard and Binghamton were both filling up. If Ogdensburg was really projected at first on the same lines, then the State Care Act has come none too soon.

And yet we do not wonder much at the opposition to this Act of those who advocate the gradual elevation of the County Asylums into Hospitals, as keeping the insane more within the neighborhood of their friends, and providing better for the increasing density of the population of the State. In Britain most of the public hospitals for the insane are called "County Asylums," and are of this mixed character. We wish the Commissioners in their comments on county care had expressed some opinion as to the actual operation of this exemption by the Board of State Charities, especially in connection with the state of things they describe as prevailing in certain counties, of which we should suppose that that Board would have taken cognizance. It certainly must be true that the exempt counties had greatly improved their former condition, however it may have come short of the "luxurious appointments" of the State Hospitals.

Moreover, there is room for a fuller consideration than has yet been given to the question of what constitutes "proper" and "sufficient" care for a large proportion of the chronic insane, who are quiet and harmless dements, into which final condition most forms of insanity are apt to run when not cured. These persons are amenable to direction, have few requirements but food, rest and clothing, and are mostly able to work, as the farm of nearly 1,000 acres at Willard, with its tramways and buildings, besides a railroad of several miles to a neighboring town, chiefly built with the labor of patients, abundantly shows. They are able to work, but really they are not "up in the fine arts," and probably derive no more pleasure from the "pictures on the walls." or the elaborate furniture and upholstery, than the average citizen presumably would from listening to the performance of a Greek play. In fact, a large share of the insane poor have had so little education that their range of ideas is exceedingly narrow, and when they reach the stage of dementia, it is difficult to distinguish it in some cases from a sort of idiocy.

We say this because there seems to be a prevalent idea or vague notion abroad that there is no difference, as to circumstances of treatment and the possibility of cure, between the earlier stages of insanity, such as mania or melancholia and the last or permanent stage of the disease, which generally remains stationary till death. Of course, there are rare exceptions that only prove the rule. The Report rather disparages this distinction between chronic and acute, as well as the distinction between "pauper" and "indigent;" though the "chronic" pauperism of the State, which has so phenomenally increased under our system of alms-houses and out-door relief, must and ought not to be confounded with, or assimilated to, in phraseology even, the circumstances of the "indigent" insane, by which everybody understands people disabled from self-support by their misfortune rather than their fault. The acknowledged classification of the insane in wards is sufficient witness to the difference of early and later stages of the disease, and the expectations of larger curability by associating all together can hardly meet any higher realiza-

tion than the small decimal fraction expressing the percentage of recoveries at Willard. (See page 67.) And both at Willard and Binghamton we suppose some few acute cases from the immediate vicinity have been under treatment.

While then we are in favor of mixed asylums, as the State Care Act. provides, we believe that discretion should be used as to the number and character of the chronic cases which should be associated with the recent or acute cases. But it will be disastrous to have what should be a Hospital in fact as well as in name flooded at the rate of 90 per cent, to 10 with a mass of chronic insanity, for which there is no discoverable method of treatment that differs essentially from simple hygienic and custodial care. The only way out of this difficulty that we can see is the provision of ample lands for each institution and the adoption of the "colony," "group," or "hamlet" system, somewhat as carried out at Willard, or as described in the last report of the Poughkeepsie Hospital, which we trust has by this time received the full consideration of the Commission. It is certainly a delusion to suppose that the same identical appointments and arrangements are equally adapted to, or required by, all classes of the insane in whatever stage of the disease they may be. Such a principle acted upon would soon reduce the acute to the chronic condition, and put insurmountable hindrances to the proper care of the recent cases that are daily brought to the Hospital for immediate treat-

The Commission speaks of a probable decrease in the percentage of insanity under the new law. This can only be, not by any prevention of its occurrence in the outside world, but by the prevention of its accumulation under State care, through a system that will permit immediate and unhindered treatment of the recent and more curable cases. It is useless to ignore or to minimize this truth, so long established by science and experience; and indeed if, by some means, people could be compelled to commit their insane for treatment at the very first access of the disease, it would do more to diminish the percentage referred to than all other provisions put together. The Commission are entirely right as to the difficulty of ascertaining this percentage hitherto, from the confusion arising from different methods of bookkeeping at different institutions and the varying bases on which statistics are made up -a state of things which a State Commission was needed to remedy: but the problem of the day is to keep down the tide of pauperism and helpless dependence by instrumentalities that shall be efficient, and not rather tend to increase the evil, by putting a premium upon indolence and malingering, by making State wardship a really higher condition than the average independent private life, and above all by pandering to the brutal selfishness and covetousness of that large class who are willing to rid themselves of all obligations morally imposed upon them by the ties of kinship and natural affection.* The Commission say that many of the wealthy are quite ready to avail themselves of our public institutions at rates which are no adequate return for the privileges and comforts they exact. So it is with free education, and all other public gratuities. This side of the subject shows abuses in relation to all classes of the community that if unchecked will go far to make public burdens intolerable. Both in the case of pauperism and

^{*}See the recent revelations as to pauperism at Hartford, Conn.

mental or moral imbecility, though sequestration from the world may at first be a deterrent, there is such a thing as making the experience of it so pleasant as to rob it of all its terrors to the shiftless, the lazy and the besotted with animal indulgence.

But on the whole, one great advantage of the State Care Act is that it gives us at last a settled policy and a stable, well-proportioned and consistent system that promises after getting into smooth operation to be capable of indefinite expansion on the same lines, according to the requirements of the State for all time to come.

The objects of the creation of the Commission are given in the following paragraph:

"Thus the Legislature in the creation of this Commission unquestionably intended that it should represent the whole State, without reference to any special class of individuals; that the interests of the State in respect to its insane should be protected: that its operations should cover the whole State; that it should be the final arbiter of all controversies in the government of the institutions; that it should possess power sufficient to enable it to protect the interests conserved by it, and be the depository of such information as would enable it to keep the State through its legislative body informed of the needs of its dependent wards suffering under the visitation of insanity and of the condition of the institutions established for their care and treatment."

These objects may be legitimate, but if the Commission would not have its orders too frequently "subject to modification as experience may indicate the necessity," they will doubtless recognize the propriety of allowing considerable margin to professional knowledge and discretion in all internal matters of medical, sanitary and economic arrangement. It might tend to inspire great distrust in the public mind to allow it to suppose that this branch of public benevolence had become a mere bureau of State officialism, or that its practical administration recognized little difference in this respect between the charitable and the penal systems of the State.

This Report is in most of its parts remarkably well written, clear and vigorous in its style, while its occasional bluntness towards the opponents of the State Care Act only shows the earnestness and sincerity of its convictions and its sense of the hostile criticisms to which the Commission has been subjected. Of course a great deal of the matter here contained is elementary, and what all will agree to; but much of what is new, as regards the previous practice of our institutions, such, for instance, as relates to fire protection, uniformity in accounts, papers of commitment, etc., will meet with general approval. The Commission has already achieved great improvement in these and other particulars.

But of course there will be some difference of opinion as to other details, for the consideration of all which we have not space at present. We notice the Commission does not favor the allowance of voluntary applications for admission, as in Massachusetts. However it may be with State Hospitals, intended only for public patients, we believe it ought to be allowed in private institutions. We do not quite understand the reasoning here. The mere fact that such a patient could not be "stopped from leaving, though his con-

dition should require longer detention," is met by the fact that there would be no difficulty in that case in taking the proper steps for his regular commitment. There appears to be some hyperasthesia in public sentiment about the "danger" of sane persons being incarcerated. Under our present system, such danger is almost nil. Besides, what is the office of our specialty, if it cannot tell the difference between sane and insane people, even though a newspaper reporter may hide himself in the crowd?

The chief cause of the vast accumulation of chronic insanity in the State, necessitating this phenomenal increase of "hospitals" and other retreats, is simply delay in the proper treatment of patients, or rather of those who should be patients long before they actually become so. Look at the statistics of those who had been insane a year or six months before admission. . Voluntary patients are those who know their own symptoms long before their friends do. And as to the friends, it is notorious that they put off as long as they can what they regard as a public exposure, if not a positive disgrace. The trifling objections arising out of jealous regard for individual liberty ought to be considered as "removed" by the public advantage of securing earlier treatment. Again, although the State Care Act must in its effects vastly reduce the percentage of recoveries reported from all State Hospitals, whether reckoned on resident population, yearly admissions or otherwise, vet in our remarks on the time-worn distinction between the "chronic" and "recent" insane we have by no means intended to disparage the Act itself. The two classes will exist as they have existed before it was passed. What we have said was meant to lead up to recommendations for giving the hospitals more land and more facilities of employment, which the Commission itself justly lays much stress upon. With the plan urged by the Poughkeepsie institution, the question of cheaper vet sufficient provision for all classes of the insane would be satisfactorily solved, and the "Hospitals" in the proper sense of the word might not be obliged to sink that character into mere places of detention. We have always contended that the large proportion of cases uncured, and for the most part incurable (as to which see the number of re-admissions), should not be sent away to an institution labelled "chronic," but should be retained under the same medical superintendence under which they have been medically treated, as best acquainted with their cases and their possible chances of recovery. This will be done under the State Care Act, but it should be done with such grading and classification of their surroundings as are suited to their real condition. The Act is workable on this theory; it certainly is not workable on any supposition that all insane have equal chances of recovery.

As to long paroles, we agree there should be some rule. The event of recovery should not be a reason for too short paroles, because nothing is easier or more agreeable than "discharge" on recovery; and we agree with the Commission that this power should be lodged with the Medical Superintendent. Parole, in this country as well as abroad, has often been found to bring a "turning point" in the disease which leads to recovery, and there should be little hindrance to this means, if intelligently used.

The uniformity of charges at the different institutions we apprehend will be difficult to effect, unless the State is called on to make up deficiencies in the

cost of maintenance, or unless in spite of different markets more or less accessible, with difference in the cost of fuel, transportation, etc., the cost of maintenance per capita can be made equal all over the State. We doubt if the surplus of any institutions will meet the deficiencies of others. Besides, it is admitted that the cost per capita is less in the case of institutions having the largest number of inmates and having the largest farms.

We have written this article rather hurriedly before going to press with this number, but we wish to thank the Commission for what is too often lacking in books and public documents, a capital *Index* appended to this report, which has materially assisted in reviewing its contents.

w. T. G.

A Farther Study of Anodal Diffusion as a Therapeutic Agent. By Frederick Peterson, M. D., Attending Physician to the New York Hospital for Nervous Diseases. Reprinted from the Medical Record, January 31, 1891.

This paper consists mainly in a review of the literature of the subject since the date of a previous paper by the author in 1889. He lays down the indications for the use of this measure as follows:

To produce local anesthesia for neuralgias, superficial pains and cutaneous operations. For this purpose he recommends three or four drops of one per cent. solution of helleborin, which, he says, produces a deeper and more lasting anesthesia than cocaine.

For topical medication in various local lesions, such as tumors, rheumatic, gouty and other swellings, various skin diseases, syphilides, etc., the customary remedies can in this way be applied directly to the seat of the disease.

Electro-cataphoric baths for general purposes. This seems to be thrown out as a suggestion. No experience, either of the author or others, is quoted.

For diagnostic purposes the author refers to a case of an extremely painful knee, following slight traumatism, in which, after having produced local anæsthesia, as determined by tests with closed eyes, the patient complained of the same pain as before when she saw the knee touched.

Early Diagnosis of Some Serious Diseases of the Nervous System; Its Importance and Feasibility. By E. C. Seguin, M. D., Member of the Providence Medical Association, the Association of American Physicians, etc. Reprinted from the Boston Medical and Surgical Journal of December 25, 1890, and February 5, 19 and 26, 1891.

The diseases considered by Dr. Seguin in this pamphlet are Posterior Spinal Sclerosis, Dementia Paralytica, Cerebral Tumor, Vertebral Disease and Epilepsy. There can be no doubt that all of these diseases are often overlooked or mistaken for other and less serious affections in their earlier stages, when most is to be hoped from treatment. The early symptoms are here given in a clear and concise manner, which cannot fail to help the general practitioner who reads the pamphlet and does not forget it before the opportunity for its application presents itself.

A Case of Intracranial Tumor With Localizing Eye-Symptoms: Position of Tumor Verified at Autopsy. By Charles A. Oliver, M. D., of Philadelphia. Reprinted from Archives of Ophthalmology, Vol. XX, No. 1, 1891.

In this case there was gradual development of right hemiparesis, with some anæsthesia of the same side, right-sided convulsions without loss of consciousness, and right hemianopsia, with impairment of vision and contraction of the visual field on the other side. Diagnosis of gross left-sided lesion in the region of the left pulvinar. At the autopsy a glioma was found involving the left optic thalamus and the posterior two-thirds of the corpus striatum. The left optic tract was flattened by pressure.

A Case of Brain Tumor Without Characteristic Symptoms. By Gros. R. Trowbridge, A. M., M. D., Assistant Physician State Hospital for Insane, Danville, Pa.

The patient, a man, aged fifty at time of death, had suffered for thirteen years from epilepsy, during the last three of which he had been an inmate of the hospital. There was nothing peculiar noticed about his convulsions, which were controlled, to some extent, by the usual treatment, and his mental state presented no unusual features. Death from dysentery. At the autopsy two cysts were found, occupying the anterior thirds of the second and third temporo-sphenoidal convolutions and the gyrus uncinatus. There was also a hard tumor, the size of a hickory nut, in the anterior part of the latter convolution, and the anterior third of the first temporo-sphenoidal convolution was softened. The author is confident that there was no impairment of the patient's hearing during life, and no symptoms were noted to arouse suspicion of a gross lesion.

Ninety Cases of Paretic Dementia. By the same author. Reprinted from the Alienist and Neurologist, April, 1891.

Of 3,518 admissions to the Danville Hospital for the Insane, 90 were cases of paretic dementia, 13 being females; 55 males and 11 females were whites of American birth, and 2 males were negroes. Intemperance was assigned as a cause in a larger number of cases than any other, syphilis ranking next. The average age at death was 44 years 3 months. The oldest patient, a male, died at the age of 65; the youngest, a female, at 26, having been attacked at 21.

The Diseases of Personality. By Th. Ribot, Professor of Comparative and Experimental Psychology at the College de France, and Editor of the Revue Philosophique. Authorized Translation. Chicago: The Open Court Publishing Company. 1891.

When the white light of future generations is turned back upon the pathway that marks the history of thought, our age will be remembered as that in which philosophy for the first time had its dwelling place elsewhere than in the clouds. The fathers of philosophy were too little schooled in inductive thinking to comprehend its possibilities, and the mediæval mystics dwelt so

high in air that they scarce remembered they were earth-born. Sacred allegory tells us of the instability of houses founded on the sands; what, then, shall we expect of dwellings having no foundation better than a cloud? Yet within their air-castles these mystical thinkers sat intrenched, and believed that they possessed within themselves data for the solution of all the philosophical problems of the ages. If any venturesome spirit, aeronautically inclined, approached their dwelling, he would find the doorways barred with cobwebs, which blinded his own vision if he strove to enter. Little wonder that the apriori theories that issued from these cloud dwellings were shadowy, vague, contradictory and indeterminate. How unreal and misleading such subjective musings were likely to be, alienists, whose life work brings them in daily contact with similar thinkers, can best comprehend.

"Have you built your castle in the air?" asks one of the prophets of this century; "that is the place for it; but now put a foundation under it." And the philosophers of the present age, as if mindful of this admonition, are building a foundation beneath the philosophical air castles of their predecessors. Whether this foundation rests upon the sands or on a rock, the future must decide; but at least it finds its footing on the earth, and is building upward instead of striving to build downward from the skies. Its builders have learned, if nothing more, that the human mind is a receptive and plastic effect far more than it is a creative cause. So they are getting data from the objective world; and psychology is coming, as someone has said, to be "no longer the biography of minds, but a history of the mind."

In the forefront of the ranks of that large and growing body of thinking observers who are adding to the edifice of the New Psychology, is Th. Ribot. With that clearly discriminative judgment which is distinctively modern, he has struck out certain fields of observation for himself, and with rigid self-discipline he compels himself to delve for facts within his own bounds. "The Diseases of the Will" and "The Diseases of Memory" are among the results of these labors. To these works the present one is complementary. It manifests the same critical acumen, the same capacity for concentration the others have taught us to expect. It is a book worth the reading, not so much because it contains a great deal that is new, as because it systematizes and arrays for examination much that has only been old since vesterday. The main thesis of the book is the essentially modern doctrine that "personality is from without inward." "As the organism, so the personality," we are told; and again, "The preponderating state of consciousness constitutes to the individual and to others his personality." A patent enough fact, it would seem; but one that escaped many generations of thinkers. The old castle-dwellers thought that the personality remained ever the same, but that at times a demon entered and dispossessed it.

M. Ribot nowhere demonstrates his critical acumen more clearly than in the nicety with which he avoids discussion of alluring but indefensible hypotheses. He is after facts, not fancies. Having summed up his knowledge of a subject, he says (once explicitly, and often in effect), "Upon this subject we could not say anything more without falling into repetitions, or without accumulating a number of hypotheses." And, unlike some equally well-meaning but less rigidly self-denying writers, he is as good as his word.

Having nothing more to say on a topic, he says nothing more about it. Such forbearance is little less than startling, but it is eminently refreshing. Of course it is not to be understood that our author altogether ignores theories. One could not be human and do that. But he avoids them where he can, and at most speaks of them with humility. Even when he departs somewhat sharply from his usual rule to firmly, if mildly, combat the fascinating but scarcely philosophical doctrine of dual brains, he still speaks with the respectful reserve of the true scientist. He must have a clear reason for the faith that is in him ere he will allow himself to become wedded to that faith.

In the main, the work is analytic, treating in turn of the specific disorders of the organism as a whole, of the emotions, and of the intellect proper. But in conclusion, the author glances at his subject synthetically, and brings together the scattered materials of his analysis. The discussion leads up to the question as to the unity of consciousness. And here again the scientist obliges the philosopher to answer with circumspection. "Does there exist a perfect unity? Evidently not in the strict mathematical sense. In a relative sense it is met with rarely and inadvertently." But this problem is, "in its ultimate form, a biographical problem." You must turn to biology with your question. And biology will answer—if it can. There must be no aireastles without solid base for M. Ribot.

H. S. W.

## HALF-YEARLY SUMMARY.

ALABAMA.—Dr. Bryce writes the following note regarding the establishment of a new and useful feature in the industrial department of the Alabama Insane hospital:

"We have heretofore found it difficult, and often impossible, to find suitable and congenial occupation for the better class of white male patients who are not accustomed to manual labor or laborious out-door work. I suppose every institution for the insane has, in a greater or less degree, experienced the same difficulty, and has endeavored, in one way or another, to meet it. Our own solution of the problem has been the establishment of an art and industrial department in a large shop erected for the purpose, and under the direction of a competent man, whom we happened to employ, and who is especially qualified to conduct such an establishment. In this shop the several industries are carried on, under his direction, by the patients alone. Tools of all kinds are provided, and all kinds of scroll and fancy work, baskets, canes, toys and notions of every variety are manufactured and sold in the city for the benefit of the Hospital. But decidedly the best feature of this establishment is the manufacture of mats out of scraps of woolen and cotton cloth which are left over after cutting out the garments worn by the patients. These scraps are cut into long, narrow strips and drawn or looped through the meshes of canvas cloth or old sacks as a foundation, with an ordinary wooden crochet needle manufactured in the shop for the purpose. Pretty designs and figures are stamped upon the canvas, and then filled in with the different colors of cloth, making a very pretty and substantial mat. About fifty of our best male patients are engaged in making these mats, which they learn to do without the least difficulty. The output is considerable in a week or month, and in the end quite sufficient to keep every room in the Hospital supplied with a neat mat or floor cloth. This is one of the most valuable as well as most feasible industries that we have, and I advise others who have not already done so to adopt it."

ARKANSAS.—The Legislature has appropriated \$85,000 for construction for three hundred additional patients at the State Asylum at Little Rock.

—The Trustees of the State Asylum at Little Rock have let the contract for additional buildings, comprising a detached building of three wards for men, one of four wards for women, and a chapel 90x55 feet, the cost of the whole to be \$76,600.

California.—Dr. E. T. Wilkins, Superintendent of the Asylum for the Insane at Napa, died during the month of February, 1891. Dr. Wilkins ranked high among the alienists of the United States. In the year 1870 he was sent as state commissioner to Europe, for the purpose of studying asylum life and the best method of providing for the insane. On his return he designed and assisted in drawing the plans of the Napa Asylum for the Insane,

was its first superintendent, and has always maintained it as the model institution of the state. He was noted for the kindly treatment of his wards and the practical abolishment of restraint. His death was mourned as a public loss.

The position of Superintendent of Napa Asylum for Insane, made vacant by the death of Dr. Wilkins, was offered to Dr. Hatch, Medical Superintendent of Agnew Asylum, but was declined. Dr. A. M. Gardner, Second Assistant Physician, was then elected to the superintendency.

-The Legislature of 1890-1891 made liberal appropriations for the various state asylums. Sufficient was given to Agnew for the completion of all buildings at present contemplated. Appropriations for the asylum now in process of construction at San Bernardino and Mendocino were passed, but that for the latter was vetoed by the Governor. This was probably a wise step. While an asylum is very much needed in Southern California, no reasons beyond political ones could be adduced for the establishment of an asylum at Mendocino, which has but limited railroad facilities, and would be very difficult of access except for two of the smaller coast counties. It is true that a site has been bought and the corner stone for the building laid, but it is probable that the building will not be finished. Sufficient buildings for the reception of the insane will probably be completed at the San Bernardino Asylum before the end of the year. This is especially desirable, for at present Southern California has no asylum, and it is necessary to bring all patients committed from there a distance of several hundred miles, which is not only an inconvenience, but is, for the state, a very costly journey.

Connecticut.—The Legislature having failed to make the usual appropriations for the support of the various charitable institutions of the State, Governor Bulkeley has determined that these institutions shall receive what they are entitled to under the general statutes, considering it the duty of the Executive to carry out the provisions of the general statutes and save the charities from needless embarrassment. As the State Treasurer is prohibited from expenditure of State moneys except upon specific appropriation, there is some question as to the power of the Governor in the matter, and his decision will probably meet opposition.

Indiana,—At the National Conference of Charities and Corrections, at Indianapolis, May 15, Dr. A. R. Moulton, Inspector of Institutions of Massachusetts, read a paper on the Commitment and Discharge of the Insane, in which he urged that commitments should be voluntary, judicial and emergency, and favored placing the power of discharge principally with Boards of Trustees, who might delegate this duty to Superintendents; to judges, under certain restrictions; and finally to the State Boards of Charities or Governors. Superintendents should be authorized to parole patients, who might return without new commitment at the end of six or eight months, if unable to sustain themselves at their homes.

Dr. Dewey, of Kankakee, read a paper on "Voluntary or Self-Com-mitment."

Dr. W. B. Fletcher, of Indianapolis, read a paper on the "Detention of

the Insane," disparaging the jury system, political control of asylums, and the accumulation of large numbers of the insane in "piled-up structures of architectural magnificence, with palatial officers' quarters in the center, flanked by prison cells."

"State and County Care of the Insane" were contrasted in papers read by Hon. Oscar Craig, President of the New York State Board of Charities, and

Dr. H. H. Giles, of the Wisconsin Board of Charities.

The Indianapolis Journal comments editorially upon the care of the insane, as follows:

"It was said that quite a large number of the officials of the Indiana hospitals were present to get light on the subject of the management of the insane. If such were the case, any of the members of the existing asylum boards who were present must have been impressed with the fact of their lack of knowledge of the subject when they heard the experienced and able gentlemen who are in charge of the asylums in New York, Wisconsin and Massachusetts express their opinions. Those States have long since abandoned partisanship in the control of insane hospitals. The men who are selected doubtless belong to political parties, but they were not selected for trustees, or managers, for that reason, but because they are men of intelligence, who have a personal interest in the management of asylums and have made it a study. How many members of the three local boards directing the Indiana hospitals are chosen by the Legislature because they had any special qualifications for the position? How many of them could go into the conference and speak intelligently regarding any phase of hospital management? Men are not lacking in Indiana who are interested in great public charities, but under the present regime Indiana has no use for them, and the places which they should fill are voted to men utterly ignorant of the whole subject, to the end that they may draw a few dollars from the state treasury and fill the subordinate places with the political dependents of this or that man. Indiana will expend and waste millions of dollars so long as the present system-or want of system-continues, while Indiana citizens who are well informed and interested in hospital methods will be mere lookers-on,"

—At the Central Indiana Hospital an appropriation of \$35,000, made by the last Legislature, will soon be used in putting in an electric light plant of 3,000 lights. A \$10,000 laundry and a \$7,000 tunnel will be constructed during the summer. The chapel of the department for men has been transformed into a ward to accommodate twenty-four patients, who will in the day time be permitted to come and go as they please. The new ward will be called Pinel Hall. During the year 455 patients have been transferred to the Northern, Eastern and Southern Hospitals, and a like number have been received from jails and poor-houses.

—The Southern Indiana Hospital has now 312 patients. The total number of beds is 384, which will be occupied soon after the transfer of fifty more women from the Central Hospital at Indianapolis.

An electric motor, ten-horse power, has been placed in position in order to work the pumps at the wells, which now afford an inexhaustible supply of good water. Extensive improvements will be made in building walks, roads and avenues.

Iowa.—At the Hospital at Mount Pleasant an amusement hall, with seating capacity of nearly six hundred, with fully equipped stage to accommodate one hundred, and a chapel of nearly as large capacity with a \$2,500 pipe organ, are approaching completion. Among other improvements are a 150-horse power Corliss engine for work in the machine shop, laundry and industrial department; encaustic tile floors in place of old wooden floors, and a commodious slaughter and packing house. Copious rains assure large crops. The census is 815.

Kansas.—Dr. Eastman sends the following tersely written summary of some complications in Kansas, under date of June 15, 1891;

"It is not often that there is anything of interest to report from the Kansas institutions for the insane, but at the present time we have a most intensely interesting conundrum to solve. The Legislature which met last winter passed a law which is known as the eight-hour law, making eight hours constitute a day's work for every person engaged by or on behalf of the State of Kansas, or by or on behalf of any county, city, township or other municipality of the state. It also provides that the full regular pay per diem shall be paid for eight hours' work. For any infringement of this law heavy penalties, by fine or imprisonment, are prescribed. It is also made a penal offense to permit any person thus employed to work more than eight hours, except only in case of war, or to save life or preserve property. While it is not at all probable that this law was intended to affect the State charitable institutions, the Attorney General has just decided that it does apply to them. There are other statutes which make it a felony to spend, or contemplate spending, any more money than is appropriated for a given purpose. The appropriations for salaries and wages for all the State charitable institutions are made by items—so much for the salary of the superintendent, so much for the salary of the clerk, so much for the salary of the engineer, so much for the salaries of a given number of attendants, etc. Taking these laws in connection with each other we have the following specific legal requirements and results: First, any action on the part of the superintendent of the asylum which expends or contemplates expending more money than has been appropriated for any given purpose or special salary, is to be punished with heavy fine and imprisonment. Second, specific appropriations are made for the employment of, for instance, one clerk, one engineer, one baker, a certain number of kitchen employés or a given number of attendants, etc. Third, the eight-hour law prescribes that where these employés of necessity worked more than eight hours two persons shall be employed in the place of one, and each shall be paid full wages, and failure to do this is punishable by 'a fine of not less than \$50.00 or more than \$1,000.00, or by imprisonment not more than six months, or by both fine and imprisonment, in the discretion of the court.' It looks very much like the old saving, 'You'll be damned if you do, you'll be damned if you don't,' and that whether we do or don't, the penitentiary looms up in startling proximity. In fact, as the Topeka Asylum is now running, with about one hundred and twenty employés, whose duties necessarily cover more than eight hours each day, the superintendent is liable each day to one hundred and twenty suits for infringement of this law, and

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to a fine of from six to one hundred and twenty thousand dollars, and to imprisonment for sixty years. A more startling example of bungling legislation has never probably been put upon any statute book. What shall be done in this condition of things is not quite clear. The Board of Trustees of State Charitable Institutions, who have in charge the eight charitable institutions of the state, as well as the superintendents of these institutions, realize that the law must be obeyed. The only method by which it seems possible to meet the requirements of this law is to discharge from each institution from a third to a half of the inmates, so that the staff of employés can be divided and worked in eight hour shifts. And even this will not completely meet the law, as, for instance, at the Industrial School for Girls, where there is appropriated a certain sum for one engineer, who also serves as fireman. By no possible expedient can this man's labor be restricted to eight hours, or another man paid to do part of his work. The only method of avoiding such discharge of inmates, so far as has yet been found, is the calling of an extra session of the Legislature for the purpose of repealing or modifying this law. The Board of Trustees, who were in session last week, only received the opinion of the Attorney General in this matter on Friday. They were unable to see the Governor at that time, owing to his absence from the capital, but the matter has been laid before him for speedy action, and, as already intimated, if an extra session is not called, the measure heretofore indicated will be adopted.

Since writing the foregoing it has been determined by the Governor, Attorney General, Board of Trustees, etc., to have a suit brought at once against the warden of the penitentiary, so as to get the law before the Supreme-Court, either on mandamus or habeas corpus, and have a decision as to the constitutionality and effect of the act. If the opinion of the Attorney General be sustained, a special session of the Legislature will be called.

—Both Asylums in the State are crowded to the utmost limit, but are inadequate to caring for all the insane. Indeed, during the last biennial period, and the time that has elapsed since, altogether nearly three years, three hundred and sixty patients have been refused admission or discharged to make room for new comers. These are lying in the jails and poor houses, or are in "private asylums," which, as a rule, are not in charge of experienced alienists or even of medical men, but are simply boarding houses kept by some former attendants.

—The regular election of officers for a term of three years from July 1st, for the Topeka Asylum, was held at the last meeting of the board. All the present officers are re-elected, except that Dr. George L. Limmer, who has served for three years as apothecary and relief physician, succeeds Dr. F. O. Jackman, who has accepted a more remunerative position at the Central Asylum, Jacksonville, Illinois, and John Brun, who has been supervisor for five years, is promoted to the office of steward.

Maryland.—Upon invitation of the Trustees of the Sheppard Asylum, the members of the Association of Superintendents visited that institution May 1, at the close of the session in Washington. The grounds and buildings were inspected under the guidance of the Trustees and friends of the asylum, and

lunch was served in the completed west wing, which is expected to be open for the reception of patients in October next.

In an address of welcome to the visiting alienists, Mr. George A. Pope. President of the Board of Trustees, spoke as follows regarding the purpose of the institution, and the character of its construction:

"Moses Sheppard organized his own Board of Trustees in 1853; had them incorporated by the State of Maryland, to which they are held to a strict and frequent accountability," with remedies provided for "remissness or perverted action:" he held meetings with them during several years, and a few months before his death, in February, 1857, he had John Saurin Norris appointed in his place as their President.

"The bequest, by his will, was to the Trustees thus created, to whom the estate was given untrammeled by conditions or restrictions. It then amounted to \$567.632.40. It is now \$666,930.37. The intention of the founder was communicated by him, personally, to his Trustees; has been transmitted to this date to the present board, and has been closely followed, But besides this traditional knowledge, there are in writing memoranda left by him, the principal features of which are as follows:

[ "'My leading purpose is to found an institution to carry forward and improve the ameliorated system of treatment of the insane irrespective of expense,' and 'that the income, and not the principal, shall be used,' and 'the increased cost of preparation and attendance will limit the number of patients; that each patient shall have an attendant when it may appear useful -an experimental establishment. Let all that is done be for use strictly, and not for show.'

"His design was for a hospital for the cure of the insane, and not an asylum for the care and safe keeeping of chronic cases.

"This property was bought in 1858. It contains (with small additions made later), 377 acres. In the next year bricks for the buildings were begun to be made, and of over eleven millions used, about four-fifths were made on the farm.

"Considerable time was consumed in digesting plans. Those of Dr. David Tilden Brown were adopted in 1861, after his return from Europe, where he traveled on behalf of the Trustees. Ground was broken 25th May, 1862, and the whole work on the place was prosecuted as rapidly as its thoroughness would permit within the limit of the income available for the purpose. The income has averaged about \$24,000 per annum net. The cost of the land (377 acres) was \$70.896.89. There has been expended for building account \$847,044 to this date, which includes gate house and other buildings. roads, &c.

"The Asylum buildings are fire-proof, having iron stairways, floors of brick arched on iron girders, and slate roofs. The two wings-east and west -are alike; they are separated by a space of 100 feet, and are intended for each sex; they are each 360 feet long, each having a south wing 100 feet long. In different parts they are of three, two and one stories, with attics over all, with basement story under all, and subwavs under the basement. In the subways connected by tunnel with the laundry building (400 feet south), are the steam, water and drain pipes, and the radiating heaters. The laundry building contains in its basement the steam boilers, hot water fixtures, and room for engines, dynamos, forcing fan for fresh air through the tunnel, &c. It has a tower 90 feet high, on which are water tanks of 18,000 gallons capacity, into which will be pumped very pure water from several large springs on the property, concentrated into a reservoir in the woods 1,600 feet south of the building. These tanks will distribute water to the highest parts of the buildings. Two large cemented cisterns underground—of 60,000 gallons each—collect rain water from the slate roofs, to be used in the boilers and for laundry purposes.

"All the construction, as you will view it to-day, is 'argely due for its thoroughness and stability to the unremitting labors of Mr. John Saurin Norris, as President for a period of 26 years—until his death in 1882. These buildings constitute a memorial of the fidelity, intelligent and broad liberality

of his almost life-long efforts.

"With a few months' more work on the water fixtures, electric lights, mantels, interior furnishings, &c., the Trustees expect to be ready to receive patients in the autumn of this year. They esteem the institution especially fortunate in having secured the services of Dr. Edward N. Brush as its Medical Superintendent, believing his experience and professional attainments will enable it to start upon its beneficent mission under most efficient auspices.

"One of our own physicians, writing several years ago, said: 'The study of insanity is the field, of all others, in medical literature which is most barren of results, and any man of talent and enthusiasm who, in the light of the recent advances in brain physiology, cultivates its dark expanse, may gain the reward of a name and the satisfaction of having done a good and necessary work. It may be that the Trustees of the Sheppard Asylum, if they are wise and fortunate in the selection of this man to guide their institution in its high purpose, will be able to add something valuable to the knowledge of insanity out of the administration of their advanced institution.' In this he has voiced the hope of the Trustees.

"It will be patent to you to-day that we present to you merely the shell—the opportunity—of what may develop into a great curative establishment. You will see that much is yet to be done in furnishing and adornments inside, and in indispensable embellishments outside—such as walks, arbors, fountains, conservatory, flower and fruit gardens, lawns, pavilions for amusements, etc., and that our limited income will necessitate all this to be done gradually, and that to accomplish the approximate perfection we aim at we shall be constrained to require adequate, even large compensation, for the conveniences and facilities we can offer patients who can afford to pay for them, in order that we may be able to extend its advantages to some of slender means. It is by no means the intent to confine its resources for cures to the rich, but that the unfortunates who may be wealthy may, out of their abundance, help lighten the affliction of poorer brethren. Our Superintendent, while thus having a glorious opportunity, has a load of responsibility in broadening this benefaction to the greatest attainable measure of usefulness."

Addresses were also made by Dr. Brush, the Superintendent elect of the Asylum, Dr. John B. Chapin, Dr. Daniel Clark and Dr. H. P. Stearns.

Massachusetts.—In response to an invitation from the Boston Medico-Psychological Society, Professor II. II. Donaldson of Clark University has delivered in Boston a course of six lectures on Cerebral Localization. The following subjects were chosen:

"Brain Architecture-Relation of Cells to Fibres."

- "Brain Schemata—Normal Variations of Brain Form—Validity of Methods of Investigation."
  - "Motor Centres."
  - "Sensory Centres."
  - "Localization in Animals, and the Evolution of Function."
  - "Localization-Theoretical Considerations,"
- —Thirty thousand dollars has been appropriated for a new ward at the Boston Lunatic Hospital, for one hundred men of the quiet class. The ward is to be built on the farm in Dorchester, and its plans are now in preparation. The building will be of plank placed upright, a mode of construction sometimes used for mills, made fire-proof by inside plastering on wire netting, and finished exteriorly in the half-timbered style with plaster. It will consist of two stories, and a wing for kitchen. Day rooms, dining room and attendants' rooms will be placed on the first floor, and dormitories, bath-rooms and strong rooms above.
- —The Taunton Lunatic Hospital has received from the Legislature an appropriation of \$45,000 to erect a new building or wing for the care of sick and infirm female patients. It is hoped that a similar building may be erected next year for male patients.
- —The commission appointed to make provision for the chronic insane has selected a site at Medfield, twenty miles from Boston, and has submitted plans for an institution on the cottage system for the accommodation of one thousand patients. The plans contemplate an administration building and eighteen cottages enclosing a hollow square, in which are the general kitchen and congregate dining rooms, the laundry, power house and recreation grounds. Four cottages are provided for quiet patients, four for the infirm, and two each for untidy and excited patients and epileptics. The cottages are to be two stories, with day rooms on the first floor, built of brick, very plain, but with effective lines. There will be no dark corners. Water closets, lavatories and bath-rooms will be placed in annexes.
- MINNESOTA.—The last legislation appropriated \$216,000 for building purposes at the Third Minnesota Hospital, at Fergus Falls. With this money the trustees propose to finish a building now partially constructed, erect another wing, build the boiler house, steward's store house, kitchen building and laundry. With these additions there will be accommodations for five hundred patients. With the exception of the out-buildings, all buildings will be fire-proof.

NEW HAMPSHIRE.—The second class in the Training School for Nurses of the New Hampshire Asylum graduated on June 19. This completes the third year of the school since its opening. The success of the school has been assured, and its good effects on the character of the service in the institution are quite manifest. A number of nurses remain in the employment of the asylum as head nurses, while a still larger number have engaged in private nursing outside the institution. The very fact that the asylum furnishes a superior grade of nurses for the general public does much toward removing the old prejudice existing against such institutions, and demonstrates also the fact that the asylum is really a remedial institution provided with the best agencies for meeting mental disease.

The Walker Summer Cottage was opened at Lake Pennacook on June 1st. The building accommodates nearly twenty patients, and is intended to be a summer sanitarium for the convalescent class. Thirteen female patients reside there with their nurses at present. The freedom from restraint, the quiet, and the home living are greatly appreciated by those who live there, and the good results following the change are already seen. It is proposed to creet in the near future another building for male patients in the same locality. The asylum by recent purchase owns nearly twenty acres on the shore of the lake. The place is distant from the asylum proper nearly four miles, and can be reached by electric railway and steam launch, or by carriage. The land is partly open and partly wooded, and is susceptible of much future development. The distant views are fine. It is not unlikely a fruit nursery will be commenced during the following year, thereby furnishing agreeable employment for a small number of male patients.

New Jersey.—A new wing is to be added to the Essex County Asylum, which will complete the front of the building—three stories high, single rooms and dining addition to each ward. The new wing will accommodate eighty patients.

-The Training School for Nurses graduated six women in June.

New York.—The State Charities' Aid Association held a public meeting in Chickering Hall, New York City, Friday, May 1st, to commemorate the enactment of legislation for the removal of over 2,000 insane persons from the poor houses of the state. Addresses were made by the President of the Association, Professor C. F. Chandler, ex-President Grover Cleveland, Mr. Joseph H. Choate, Mr. John M. Bowers, Rev. Dr. Henry Van Dyke, Hon. Henry E. Howland and Bishop Potter.

—In the last seven years the State Board of Charities has sent back to their homes in Europe 1.374 "permanently disabled and helpless alien paupers." The following table shows the number of such persons sent back in each year and the nature of their disabilities at the time of landing in this country:

						*
1884.	1885.	1886.	1887.	1888.	1889.	1890.
Total number114	152	175	216	323	229	165
Lunatics 11	10	19	25	14	10	8
Imbeciles 19	21	24	26	26	6	7
Feeble-minded 34	78	33	52	91	62	33
Vagrant & diseased 7	13	18	27	87	42	29
Decrepit 8	5	23	10	29	31	19
Cripples 9	9	8	21	13	12	15
Blind 3	2	3	8	4	)	
Epileptic 2	1	9	7.	8	. 8	5
Paralytic 2	1		. 5	3	3	3
Deaf Mutes 1			3			
Otherwise infirm 18	12	38	32	48	50	46

- —The board for the establishment of State Insane Asylum districts has approved plans for detached buildings at the Utica, Hudson River, Binghamton and Middletown Hospitals, provided for by the last legislature, in carrying out the requirements of the "State Care Act" of 1890. Transfers from county alms houses are made as vacancies occur in the State Hospitals, and it is expected that all of the insane of New York will be under State supervision with the completion of these detached buildings.
- -The State Commission in Lunacy, at a special session held May 27, 1891, adopted the following resolution:
- "Resolved, That unless the commission is otherwise requested by the boards of managers or trustees of the respective State Hospitals for the insane, all official communications other than those relating to routine matters be addressed to the board of managers and forwarded under cover to the president of the board."
- —Dr. Carlos F. MacDonald, President of the State Commission in Lunacy, has been appointed lecturer on Mental Diseases at the Albany Medical College.
- —Competitive examinations for positions of superintendents, assistant physicians, women physicians and apothecaries in the State Hospitals have been held by the Civil Service Commission at Albany. Appointments are made from the eligible lists.
- —The third annual commencement of the Training School for Nurses and Attendants of the Willard State Hospital was held in the amusement hall of the hospital on the 16th day of May, 1891. A class of twelve was graduated and received the regular diploma.
- —The most important event in the history of the Buffalo State Hospital during the last half year was the completion of the new ward building, which provides accommodations for one hundred and fifty patients. A formal opening took place on Tuesday, June 16th, in connection with the graduating exercises of the training school. At the conclusion of the exercises the audience adjourned to inspect the new building and partake of the hospitality of the hospital. There were present beside the local board of managers Messrs. Brown and Reeves of the Commission in Lunacy, and Messrs. Letchworth and Foster of the State Board of Charities.

The new building is universally pronounced to be an improvement upon the other ward buildings, and is really a marvel of light and beauty. It is tastefully furnished, thoroughly ventilated and heated, and seems to be well adapted for the use of a hospital and a home. The pleasant and perhaps noteworthy fact about the construction is that it was completed within the sum appropriated by the Legislature.

Fourteen diplomas were conferred upon the fifth class of the Training School.

The Commission in Lunacy has directed the transfer of patients from the counties of Chautauqua and Genesee to the number of one hundred and nine, and the transfer of about thirty patients from Buffalo to Willard. These

changes, with the already existing surplus, will fill the new wards to their capacity.

—At the Binghamton State Hospital excavation has been commenced for the new buildings to be erected in pursuance of an act passed by the last Legislalature, for the accommodation of about 130 additional patients.

A new farm barn and silo are in process, of construction at the Barlow farm, a mile and a half from the main building, and many improvements on the hospital grounds are to be made during the present season.

Thirry-six male patients have been received from the Utica State Hospital and fifty male patients have been transferred to the Hudson River State Hospital, in compliance with orders issued by the State Commission in Lunacy.

- —Two additional detached buildings for the accommodation of 240 chronic cases are in process of construction at the State Homeopathic Hospital at Middletown. A weekly paper named the *Conglomerate*, written, edited and printed by the patients of the Middletown hospital, has recently completed its first year of publication. Public exercises in commemoration of the event were conducted by the editorial staff.
- —At the St. Lawrence State Hospital the Garden Cottage was organized and received patients in March. The reception cottages of the Central Hospital group will be in readiness for 120 patients in August. Work is progressing in the erection of group number three and in the finishing of the observation cottages, which will not be prepared for patients before the beginning of the new year. The pumping and electric light plants are in successful operation.
- —The new asylum for insane criminals at Matteawan is approaching completion, and will be ready for occupancy during the coming summer. The final contracts for the work have all been let and are in progress. The interior work is practically finished with the exception of wall painting, the supplemental steam heating connections and the hot water supplies to the laundry machinery and kitchen utensils, which are now being made. Aside from this, the work that is now actively progressing is largely concerned with the exterior of the building, and relates chiefly to the water supply and to the grading. A large eistern or reservoir to contain two hundred thousand gallons of water, and supplied from the village system is in process of construction, and the work of setting pumps to supply the water tower, which will be used to distribute the water through the plumbing system, is well under way. The buildings, except the upper stories of two infirmaries, are thus practically finished, and will soon be ready for occupancy.

The general oversight of the work of construction has been in charge of the Commission appointed by act of the Legislature, and has been in immediate charge of Hon. I. G. Perry, the State Architect. The buildings themselves have been so often described as to their general arrangement and plan, that it is unnecessary to repeat such description here. The furniture for the laundry and kitchen is erected in place; a large amount of ward furniture is already delivered, and the Medical Superintendent is only awaiting the completion of contracts and the formal delivery of the asylum to the Manager, the Super-

intendent of State Prisons, in order to fully furnish the building and open it for the reception of the patients now at Auburn Asylum.

For many years it has been the established policy of the State of New York to separate such of the insane within its borders as are under the jurisdiction of its courts from the general population of the other State Hospitals, and to provide an asylum where the best treatment can be obtained, and at the same time security be assured from the escapes of dangerous lunatics. The State Asylum for Insane Criminals at Auburn has for several years been largely over-erowded and unable to respond to the demands made upon it for the reception of such patients. By reason of the insecure nature of the State Hospitals for the insane and frequent escapes therefrom, and, also, because of the dangerous character of the criminal insane, who, by reason of hallucinations of sight and hearing and ideas of persecution, are rendered dangerous factors in the community, such patients are objectionable in ordinary asylums for the insane. In 1884, therefore, a special act was passed by the Legislature, providing for the transfer to the Auburn Asylum of all insane persons confined upon criminal charges in State lunatic asylums. It is intended, as soon as practicable, after the opening of the new asylum at Matteawan, to receive all such patients, now held in custody in the various institutions in the state, and to provide for them at Matteawan. The new asylum will accommodate about four hundred and fifty patients. It is under the direct management and control of the Superintendent of State Prisons, but in its organization and in its methods of treatment it is similar to the other State hospitals; and at the same time it provides society with greater security from the acts of dangerous lunatics who may become at large. The new asylum, when finished, will receive and hold for treatment all who have committed acts of a dangerous character against the law, and who are adjudged insane by the courts. Cases of feigned insanity, or where an element of doubt exists, may here be securely held under constant medical observation for such time as is necessary to determine their character.

The new asylum is situated near the Hudson river, about sixty miles from New York, whence the larger portion of its cases are derived. On account of the character of the institution, a great deal of attention has been given to the details of the plans, so that it may subserve the purpose of a general hospital for the insane, and at the same time be strong and secure. The buildings are situated upon a hill overlooking the Hudson river valley, and surrounded by the mountain scenery of the upper Highlands. They are in the midst of a farm of two hundred and fifty acres, which it is proposed to cultivate, and the surroundings are in every way charming and beautiful. The buildings are of brick, trimmed with Potsdam sandstone, and present a pleasing and beautiful appearance, and when fully completed and occupied, will constitute one of the finest institutions of its kind.

As soon as the buildings are ready it is intended to remove the present population from Auburn Asylum in bulk, but on account of the necessity of safe custody, the transfer will not be made until they are fully completed.

-The Monroe County Asylum has been converted into the Rochester State Hospital by Chapter 335, Laws of 1891. This act provides for the appointment of a board of nine managers of the hospital, who shall report annually to the State Commission in Lunacy, appoint a superintendent and treasurer, and determine the salaries of the officers of the hospital, subject to the approval of the State Commission in Lunacy. Section II of this act provides that "Nothing in this act shall be construed to affect the tenure of office of any of the present resident officers of the asylum." In conformity with the provisions of this law, the Governor has appointed the following named board of managers: James Vick, Mrs. Perleylette N. Graham, Miss Jane E. Rochester, William Miller, George Raines, Thomas A. O'Hare and Frederick Cook of Rochester, James W. Craig of Churchville and Levi J. Deland of Fairport.

—At Flatbush and Kings Park the patients of the Kings County Asylums were given an ice-cream festival on the 4th of July, and regular entertainments will be renewed with cool weather. The census of these institutions is 1,972.

Mr. Hugh Corboy, Assistant Steward at the Flatbush Asylum, has been instrumental in organizing the "Mutual Benefit Association of the Employees of the Commissioners of Charities and Corrections at Asylums." Article II of the Constitution of the Association states that "the main and principal object of the Association is to provide for the decent burial of any of its members."

NORTH CAROLINA.—The last Legislature changed the names of the State Asylums to "State Hospitals."

-A general dining room for female patients will be built during the summer at the State Hospital at Morganton.

Ohio.—Dr. C. M. Finch, formerly of the Columbus Asylum, died at Portsmouth, O., in March last.

-Dr. Jamin Strong, formerly of the Cleveland Asylum, is now in general practice in Cleveland.

—Dr. A. B. Richardson, formerly of the Athens Asylum, has been appointed managing editor of the *Cincinnati Lancet-Clinic*, and is professor of mental diseases in two medical colleges.

—The usual resolutions condemnatory of the political manipulation of the State asylums, have been passed by the State Medical Society. The Society means well, but apparently accomplishes little by its annual arraignment.

Pennsylvania.—The managers of the Pennsylvania Hospital for Insane have in course of construction a wing to accommodate forty additional women, which will be completed in October. The vacancy caused by the resignation of Dr. Brush has been filled by the appointment of Dr. A. R. Moulton, who has resigned the office of Inspector of Institutions of Massachusetts to accept the position of Senior Assistant Physician, in charge of the department for men. Dr. Moulton has gone to England for a brief visit, and will commence his service at the Pennsylvania Hospital, August 15th next.

- —At the Friends' Asylum at Frankford, a new building, known as the "Gymnasium and Industrial Hall," has been constructed. This is substantially and handsomely built of gray stone, pointed, is finished internally with native hard woods, and comprises, besides a spacious hall fitted up for gymnastics and calisthenics, work shops, art rooms, parlor and reception rooms. The object is to make a special feature of physical culture and congenial employment in the treatment of insanity. General art work, dancing, painting and modeling in clay have been done by both sexes during the winter.
- -Addditional accommodation has been provided the St. Francis Hospital in the city of Pittsburgh by the completion of a substantial three-story brick and iron fire proof building for one hundred and twenty-five patients of both sexes. Capacious iron fire-escapes communicate with each story. All inner staircases are of iron, or iron and stone: large balconies open from the wards; the bath and retiring rooms project outside, communicating with the wards by corridors with cross ventilation. The wards for the sick and helpless are on the first story, and are fitted up with diet kitchen, food lifts and other modern and sanitary means of care. The arrangements of heating, ventilation and removal of sewage and waste are in the most approved style, and the means of egress from the building are capacious and easy. A tank in the mansard floor supplies water in abundance to all parts of the house, underground pressure. An iron and glass bridgeway connects the first and second floors with the existing main hospital building. It was made a special proviso by the State Committee in Lunacy, when approving the plans for the building, that the third story should not be used for the accommodation of insane patients.
- —Plans have been prepared which contemplate the erection of a congregate dining-room and refectory, and additional wings of fire-proof construction, two stories in height, at the Insane Department of Blockley Alms House, Philadelphia. The proposed extension includes additional airing courts for both sexes.
- —The Governor has approved the bill providing for the selection of a site for the chronic insane, to be called the State Asylum, and appropriating \$500,000 therefor, and appointing the following Commission to select the site and build the hospital: Dr. John Curwen, Warren; Wharton Barker, Philadelphia; Hon. John B. Storm, Monroe county; Hon. John M. Reynolds, Bedford; and Henry M. Dechert.
- —The Governor has vetoed the act appropriating \$190,000 to be paid to counties to maintain their chronic insane, for the reason that the State ought to have their care.

SOUTH CAROLINA.—Governor Tillman has requested the resignation of Dr. Griffith, Superintendent of the State Lunatic Asylum at Charleston. Charges were made that Dr. Griffith failed to keep patients under proper restriction, permitting the escape of violent patients, and that food and attendance were improperly supplied. Charges of abuse by attendants and homicide of an

idiot by a patient were also preferred, and a Legislative Commission for investigation was appointed. Dr. Griffith was not allowed to appear before the Commission or answer the charges, and denies the right of the Governor to remove him without cause. It is supposed the attempt at removal is due to political differences.

TENNESSEE.—The last Legislature passed a law authorizing the Superintendent of the Eastern Hospital at Nashville, to draw from the State Treasury the per capita cost for maintenance for forty additional patients, without an accompanying appropriation for construction. The census of the hospital district is 617,000, and the capacity of the hospital is 275.

VERMONT.—The east wing of the new asylum at Waterbury has been sufficiently completed for use, and patients will be received as soon as the arrangements for a temporary kitchen and laundry can be made—probably about August 1st next. The plans for the completed edifice contemplated a central administration building, with adjoining easterly and westerly wings, and a permanent kitchen in the rear. A laundry will be built in connection with the boiler house. The body of the wings is a three-story structure, with central corridor and rooms on either side, interrupted midway by a cross corridor, enlarged to serve as a sitting room, and provided with a capacious fireplace of Roman brick. Through the three stories, ending at the roof in a ventilator, is a steam heated drying shaft, and dust shafts at intervals along the wards communicate with the basement. On each floor are two dormitories, with capacity of six or eight patients, with bowed fronts and ample supply of windows. Dining rooms, bath rooms, lavatories, water closets (provided with the Haber automatic apparatus) and clothing rooms are provided for each ward, with tile floors where necessary. The walls of the rooms and corridors are wainscotted with whitewood, the floors are of the hard woods of Vermont, the doors and casings are of pine, and all are finished in their. natural colors. Careful consideration has been had for proper ventilation, and daylight may enter every room. A one-story corridor 108 feet in length extends in the direction of the long axis of the wing, terminating in the "circular wards," arranged in the form of a clover leaf and two stories in height. Along this corridor are pleasant rooms in which patients may meet friends. The rooms at the center of this corridor will, until the completion of the central or administration building, be used for the asylum officers. Before entering the circular wards, the visitor's attention is attracted by a room of generous dimensions and inviting appearance at his right, adjacent to the corridor. This is the common dining room for the inmates of the "clover leaf." At one end is a large fireplace, with its suggestions of cheering influences; at the other are the connections with the food-making realms below, china closets and the needed conveniences of a dining hall. The room, though not luxurious in its finish, is exceedingly pleasant, and would make a superb dining room for a hotel. In this corridor are also bath-rooms, lavatories and water closets. A passageway at the left leads to the first member of the clover leaf arrangement. Its diameter is fifty feet. Daylight streams into the ward through sixteen large windows, from every point. The first

story is the day room, the second the dormitory. At the center of the building is placed the arrangements for ventilation and heating. The center is a shaft of boiler iron two feet in diameter. This is the avenue of the ventilating currents. Around this are the flues for warming the wards. The ventilating apertures at the floor take the foul air from the room; above come in the currents of fresh and heated air. Around the outside are placed the radiaators which supply heat directly. Here again are cheerful looking fireplaces for warmth in milder weather and for supplementary ventilation. These wards are designed for the chronic insane, those of mild type of lunacy who require for their treatment gentle influences and cheerful surroundings. Adjoining the corridor connecting the circular wards is the "sun room," an apartment somewhat resembling a conservatory and designed as a place of recreation in cold or stormy weather. It is provided with the means of furnishing artificial heat. The second or central number of the "clever leaf" is like the first. The third exists as yet only in the architect's plans. The capacity of the wards is twenty-five patients each.

Leaving the easterly end of the wing, a two-story corridor turning to the right leads to the criminal ward—a two-story building seventy-five feet by thirty-two feet, and having a capacity of twenty-five patients. Leaving the corridor the "day room" is entered, a large and pleasant apartment, with a spacious fireplace, opening to the daylight easterly through a wide bay window. From this room a corridor extends westerly, parallel with the axis of the wing. On either hand are the rooms for the patients. The second story is substantially a duplicate of the first. The sanitary arrangements, the finish, the general construction of the criminal ward, are like those of the wing. An enclosed yard will be provided for the accommodation of this class of patients. In the construction of this ward the trustees have obeyed the mandate of the law requiring a separate and distinct building for the criminal insane, though for purposes of convenience in administration it is connected by corridors with the other wards.

The walls are of brick and double, with an intervening air space of four inches, the outer wall eight inches and the inner four inches, the whole superstructure resting on well laid stone foundations upon an underpinning of Barre granite. All partitions are of brick, eight inches in thickness, and extend from floor to roof. The asylum will be heated by hot water and lighted by electricity.

Dr. William E. Sylvester has been appointed Superintendent, and is now engaged in equipping the wing already built. Dr. Sylvester is a native of Vermont, graduated in medicine at Dartmouth college in 1877, and has had fourteen years' experience in the care of the insane at Butler, Worcester and Willard hospitals. To Dr. D. D. Grout, secretary of the board of trustees, who has given personal attention to details, are attributed the successful results of construction of the new asylum.

VIRGINIA.—The new male building of the Western State Lunatic Asylum at Staunton, for the accommodation of the chronic insane, has been completed. It is a four story brick building, with a loft under the roof; it is oblong, with projections; at its widest part, forty-four feet two inches; length, ninety-seven

feet six inches. The first story contains a large day room 54x35 feet; the second, third and fourth stories are on the dormitory plan—sixteen beds to dormitory—two dormitories on a floor, giving ninety-six beds, which with six beds in rooms for attendants, gives a total of 102. This building is completed, with all the modern appliances as to heat, light, etc., with the help of organized home labor of the institution, for little over ten thousand dollars. It will be well within bounds to say that the 96 patients will be provided for with all the necessary comforts for \$125 per capita.

Washington.--The Eastern Washington Hospital for the Insane is not yet open for the general reception of patients, owing to a delay in constructing the water plant from Clear lake. Last month, however, twenty patients were transferren from the hospital at Fort Steilacoon to this institution, to partly relieve the overcrowded condition of the wards there. It is expected that in less than three weeks the remainder of the patients who belong in Eastern Washington, numbering about one hundred and fifteen, will be brought here.

The work on the new water plant is nearly complete, and a test will be made in a few days. The plant consists of two 30-horse power boilers, two Washington duplex pumps, one capable of discharging 25,000 gallons, and the other 18,000 gallons of water per hour. Each pump has a separate intake pipe measuring eight and six inches respectively. The water main will be a six inch kalamien pipe, capable of standing a pressure of two hundred and fifty pounds. There are five outside hydrants and thirteen fire plugs inside of the building. This will insure a fair degree of protection from fire. The present reservoir, which holds 25,000 gallons of water, is considered too small, and a larger one, with a capacity of from three to five hundred thousand gallons, will soon be constructed.

A bath house is being fitted up in the basement for Medical lake water alone. It will consist of three rooms—a dressing room, a "sweating" room and a bath room. The latter will contain appliances for shower and plunge bathing, also a slab for rubbing and massage treatment.

Two large barns and a carriage house are under course of construction, and will be completed soon.

One hundred and seventy acres of land have recently been purchased and added to to the hospital farm, making three hundred and thirty in all now owned by the institution. This gives a frontage on Little Medical lake which can be used for bathing, boating and for watering stock. Little Medical lake is three-fourths of a mile west of Medical lake, and contains the same properties of the latter.

An appropriation of \$30,000 for the establishment of a water plant between Clear lake and the Eastern Washington Hospital for the Insane has been passed by the Legislature and approved by the Governor.

The joint legislative committee, which recently inspected the new institution, recommended that the water of Medical lake be brought into the institution for bathing purposes. It is expected that the \$30,000 appropriated will be sufficient for the plants.

The committee was well pleased with the work done, and in addition to the maintenance fund recommended that \$52,680 be appropriated for the purchase

of more lands, for the erection of suitable out-buildings, and for the further decoration of hospital wards and grounds. This latter appropriation has passed both houses, and is now before the Governor for approval.

Washington. D. C.—The Secretary of the Treasury has presented to C. A. Carlssen, chief boatswain's mate, and Robert Kennedy, ordinary seaman, both of the U. S. S. Despatch, silver life-saving medals for rescuing from drowning in the Potomac river, January 9, 1891. an escaped patient of the Government Hospital for the Insane. The patient escaped in his underclothing, and walking into the ice, with which the river was covered, endeavored to make his way to Washington. The ice broke with his weight, and he was with great difficulty taken from the water by Kennedy and Carlssen, who imperilled their lives in the rescue. The medals were awarded under provision of acts of Congress approved June 20, 1874, and May 4, 1882, and were accompanied by a commendatory letter from the Secretary of the Treasury.

--The Superintendent of the Census has issued a bulletin showing that the total number of insane persons treated in public and private institutions during 1889 was 97,535, while during 1881 there were 56,205, showing an increase in the nine years of 41,330, or 73.53 per centum. This percentage of increase, compared with the percentage of increase of population in the last decade, namely, 24.86, is regarded as due to the great increase in the amount of asylum accommodation and a willingness on the part of the public to make full use of it. The ratio to each 1,000 inhabitants is estimated to be 1.56. The annual cost per head for the number treated was \$161.

Canada.—Dr. T. W. Burgess, Superintendent of the Protestant Hospital for the Insane at Montreal, submitted the first medical report of the institution to the board of governors, January 1, 1891. The first patient was received July 15, 1890, and from that time until the date of the report, 139 patients were admitted, of whom 10 died, 5 were discharged recovered and 9 were discharged on trial, leaving 115 patients under treatment at the beginning of the year. The total capacity of the hospital is estimated at 209; 112 men and 97 women. The report recommends ample accommodation for classification, generous diet, non-restraint, occupation and amusement, and a plea is made for contributions for extension of the buildings.

#### APPOINTMENTS AND RESIGNATIONS.

- Anderson, William H., appointed First Assistant Physician at the Eastern Washington Hospital for the Insane, Medical Lake, Washington.
- Bristol, Caroline L., appointed Assistant Physician at the St. Lawrence State Hospital, Ogdensburg, N. Y.
- BRUSH, EDWARD N., formerly Resident Physician, Department for Males, Pennsylvania Hospital for the Insane, Philadelphia, Penn., appointed Superintendent of the Sheppard Asylum, Baltimore, Md.
- BIDWELL, GEORGE S., appointed Second Assistant Physician at the Retreat for the Insane, Hartford, Conn.
- COOK, ROBERT G., appointed Second Assistant Physician at the St. Lawrence State Hospital, Ogdensburg, N. Y.
- DILLER, THEODORE, resigned as Assistant Physician at the State Asylum, Danville, Pa.
- Down, E. A., formerly Assistant Physician at the Middletown, Conn., appointed First Assistant Physician at the Retreat for the Insane, Hartford, Conn.
- Jackman, F. O., formerly Assistant Physician at the State Insane Asylum, Topeka, Kas., appointed Assistant Physician at the Central Illinois Asylum, Jacksonville, Ill.
- Limner, George L., promoted to be Assistant Physician at the State Insane Asylum, Topeka, Kas.
- Ludewig, W. H., resigned as Assistant Physician at the Iowa Hospital for Insane, Mount Pleasant, Ia.
- MAYBERRY, F. H., resigned as First Assistant Physician at the Retreat for the Insane, Hartford, Conn.
- Mellen, Samuel F., appointed Assistant Physician at the Willard State Hospital, Willard, N. Y.
- MOULTON, A. R., formerly Inspector of Institutions of Massachusetts, appointed Senior Assistant Physician, Department for Males, Pennsylvania Hospital for Insane, Philadelphia, Penn.
- RAINEY, H. W., appointed Assistant Physician at the Central Indiana Hospital for the Insane, Indianapolis, Ind.
- SMITH, CLARA M., appointed Assistant Physician at the Utica State Hospital. SMITH, M., appointed Assistant Physician at the Central Indiana Hospital for the Insane, Indianapolis, Ind.
- STROHBEHN, E. F., appointed Assistant Physician at the Iowa Hospital for the Insane, Mount Pleasant, Ia.
- Sylvester, William E., formerly Assistant Physician at the Willard State Hospital, Willard, N. Y., appointed Superintendent of the Vermont Asylum for the Insane, Waterbury, Vt.
- Tobey, H. A., resigned Superintendency of Toledo Asylum for the Insane, Toledo, O.
- WALKER, B. Wible, resigned as Assistant Physician at the Willard State Hospital, Willard, N. Y.
- White, R. C., resigned as Second Assistant Physician at the Retreat for the Insane, Hartford, Conn.
- Wiles, F. M., appointed Assistant Physician at the Central Indiana Hospital for the Insane, Indianapolis, Ind.

#### NOTES AND COMMENTS.

THE WASHINGTON MEETING.—The meeting of the Association at Washington will be memorable in its annals for more than one reason. Primarily we think it will be remembered as the starting point of new life and new interest in the work of the association.

The address of Dr. Stearns, the retiring President, and the suggestive paper of Dr. Cowles, outlined what had been for some time uppermost in the minds of many members who had the best interests of the body at heart, and we predict that the report of the committee of thirteen next year will present a plan of organization and work which will put in practical shape the wishes of the best friends of the Association.

It is somewhat remarkable that a body of this character should have survived so many years and done so much good work upon the basis—or, rather, lack of basis—upon which it was formed, and the time seems ripe for laying a new, solid foundation.

It is particularly fortunate that a meeting at which such important innovations were suggested should have been so largely attended. The roll of members certainly equaled, if it did not exceed, that of any former session.

The committee selected by the President, Dr. Daniel Clark, to take into consideration the suggestions of Dr. Stearns and those of Dr. Cowles is an able one, and fully equal to the great task before it; yet it may not be out of place to say that it would doubtless welcome thoughts and hints from the members of the Association.

The scientific interest of the occasion was well sustained, as the papers which the JOURNAL will have the pleasure of presenting to its readers will bear witness. The labors of the committee of arrangements bear excellent fruit. The discussions were brief, but pointed, and well sustained.

The selection of Washington for the place of the next meeting was an excellent one. The capital is rapidly becoming the meeting place of conventions of all kinds. It is easy of access, and is sure to attract for the meeting of 1892 a large and representative gathering, who will be equal to the important questions to be presented for consideration.

A shade of sadness was thrown over the meeting by the death of Dr. Gundry a few days previous to the session, and by a tele-

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gram announcing the death of Dr. Bancroft, while the Association was in session.

THE EIGHT-HOURS LAW IN KANSAS.—The reductio ad absurdum principle of legislation finds frequent expression in some of our modern law-making. In Kansas an attempt has been made recently to apply the new Eight-Hours Law to the penal and charitable institutions of the State. An action was brought in the Supreme Court against the Wardens of the Penitentiary and the Trustees and Superintendent of the Topeka Insane Asylum in the form of a mandamus, to compel them to obey the law. The writ has been denied, the Court holding, we believe, that the specific appropriation for paying a certain number of employés a given sum each for a year's service-in other words, the itemization of the appropriation for the salaries of officers and employés-implies that the Legislature did not intend that the Eight Hours Law which regulates the hours of labor and the per diem, should control these institutions. It is fortunate for Kansas that the wisdom of its Supreme Court is superior to that of its Legislature. Dr. Eastman's account of the farcical procedure (vide Summary), will be read with interest.

The Fire Protection of Hospitals for the Insane.—The thanks of the specialty are due to Dr. L. H. Prince, of Batavia, Ill., for a capital manual on the fire protection of hospitals for the insane. The book is exceedingly opportune, and will be eagerly procured and read by all hospital officers whose imperative duty it is to leave nothing undone in the way of armed defence against the arch enemy. Dr. Prince, himself a practical fireman, knows whereof he affirms. His book has been carefully prepared, and, embodying as it does the results of a wide experience, fully meets the needs of the asylum practitioner. The chapters on the organization and drilling of the fire brigade will be found especially suggestive and useful.

#### OBITUARY.

#### RICHARD GUNDRY.

Richard Gundry was born at Hampstead Heath, England, on the 14th day of October, 1830. He was the son of the Rev. Jonathan Gundry, a Baptist minister. During his boyhood he attended the school of the Rev. Mr. Shingleton, at his native place, but at the age of fifteen or sixteen removed with his father to Canada. He had been looking forward to the study of law previous to his removal to Canada, and had shaped his studies with that in view. After his removal he renewed the study of law at Simcoe, Ont., and soon thereafter began the study of medicine with Dr. Coverton, now of Toronto. Subsequently he entered the medical department of Harvard University, from which he graduated in 1851 at the age of twenty-one. He commenced the practice of medicine at Rochester, N. Y., but soon receiving a legacy on condition that he would spend a certain time in traveling. he spent about two years in Europe, returning in 1853. He renewed his practice at Rochester, N. Y., and was engaged in that during the cholera epidemic of that year. He was prevailed upon by one of his cholera patients to remove to Columbus, Ohio, which he did probably in the fall of 1853. He was soon connected with a medical journal at that place, and lectured on Anatomy and Clinical Medicine in Starling Medical College. On August 4th, 1855, he was appointed assistant physician to the Columbus Insane Asylum. He accepted the position at first temporarily to take the place of an assistant who had gone for a few months' visit to Europe. By such seemingly slight accidents of environment was his future professional course determined. The assistant did not return, and Dr. Gundry remained in the position, lecturing meanwhile at the Starling Medical College, until the year 1858, when he was transferred to a similar position in the new Insane Asylum at Dayton, O. During the year following he was married to Miss Martha M. Fitzharris, of Dayton, and in 1861 was promoted to the medical superintendency of the institution at that place. He continued in that position until the year 1872, when he was called to assume charge of the completion and opening of the new Insane Asylum at Athens, O. This he successfully completed and opened in the spring of 1874, and remained its superintendent until January, 1877, when he was again called to the responsible task of

opening the new Insane Asylum at Columbus, O. The old institution, in which his labors in the specialty were begun, was destroyed by fire, and it had been reconstructed on an enlarged scale and in a degree of magnificence at that time seldom seen in similar institutions either in this country or elsewhere. Here, as in the other institutions of which he had had charge, he displayed the same skill in organization. His positive views were constantly impressed on all about him, and this institution does not to-day know the incalculable benefit which Dr. Gundry was to it, placing it from the beginning in the most advanced position as to methods of institution management.

The growing spirit of partisanship did not permit him to remain long undisturbed in this position, however, and in May of the following year (1878) he was forced to retire. A more signal instance of the folly and criminality of partisan management in benevolent institutions has never been seen in this country. From that day the State of Ohio has lost caste among the best men of our specialty throughout this country, and the institutions of that State have taken a lower position in the grade of scientific work accomplished.

Immediately on his forced retirement from this institution he was offered and accepted the medical superintendency of the Maryland Hospital for Insane at Catonsville, Md., near Baltimore. Here he remained in the same position until his death, which occurred on the 23d day of April of the present year. At the latter institution the same progressive spirit was manifested, and with his coming the institution at once took on a new life in all its departments. His kindly sympathy for the afflicted, and his humane and progressive spirit, manifested themselves in the allowance to each patient of the utmost degree of liberty that was consistent with safety.

In 1880 he was appointed lecturer on mental diseases in the College of Physicians and Surgeons of Baltimore, and in 1881 was also chosen Professor of Materia Medica and Therapeutics in the same institution.

At the time of his death he was a member of the Maryland Historical Society, President of the Harvard Association of Maryland, and member of the University Club.

He was one of the most popular lecturers in the college with which he was connected, a favorite of the students and honored by his colleagues, with the post of honor on nearly all public occasions.

Dr. Gundry was a man of strongly marked individuality. He was an original thinker, independent and self-reliant, and possessed of that self-confidence which is not offensive, but comes from a knowledge of inherent strength. His long occupation of a position, the duties of which are so multiform and vexatious, and upon which there may be said to be a constant series of assaults, did not seriously disturb his equanimity nor destroy that kindly feeling for his fellows which made his companionship so enjoyable. It was of such long duration, however, and he had so cultivated the judicial attitude, that, at once, when a subject was presented to him in one light, he instinctively called up the possible arguments on the opposite side, and thus oftentimes seemed to place himself, somewhat unnecessarily perhaps, in antagonism to the view of the subject presented. In a long acquaintance with him. however, I have never known him to do injustice to an opponent, nor to use his position to the injury of any one, high or low, who might be in his power. If the visitation of his surroundings caused him at times to show intolerance and harshness, reflection always led him to compensate for it by undue leniency and exhibition of kindly interest. He had a keen sense of honor. His most unfriendly criticism of any individual was made in his presence. While by nature and training fond of controversy, and an adversary worthy of any honorable antagonist, he combated ideas and not persons. His pronounced views brought him frequently into antagonism with his colleagues in the practical work of psychiatry, but no one ever heard him say an unkind word of any individual, no matter how much his views were at variance with his own. He always and cheerfully accorded to his adversaries the full measure of intellectual capacity and honesty of purpose that they deserved. He was their champion in their absence, and no matter how much their treatment of him may have done him injustice he was the one most ready to make excuse for their misconduct and to rebuke any criticism of their action. Even toward those toward whom for reasons of personal injustice he had cause to show enmity, he was always charitable, and where he could not excuse he passed over in silence. Honorable and generous himself he cherished animosity toward no one, and stood always ready to manifest his sympathy by word and deed.

In his management of institutions Dr. Gundry was progressive and liberal. His individuality impressed itself on everything about him, yet he was not intolerant of contrary opinions. He was known as one of the earliest advocates in this country of the

larger individual liberty of the insane in asylum treatment, and carefully and thoroughly himself tested the matter. significant that his long continued observation and thorough study of the matter only served to make him more positive in his views. When he first began to champion this more liberal treatment, as he viewed it, there were few, if any, to keep him company. Now the custom has become so universal of reducing to a very small minimum all mechanical appliances in the treatment of insanity, which was the chief point in dispute, that there remains no necessity for continuing further discussion of the subject. The indebtedness of psychiatry in this country to Dr. Gundry, and particularly the debt which the State of Ohio owes him, can never be estimated. He shaped the policy of her institutions and planted them upon such a broad and liberal basis, and established such sound principles of management, that all the changing vicissitudes of politics and the demoralizing influence of partisan greed have not succeeded in effacing the evidences of his beneficence. To-day the asylums of Ohio are not inferior to any in the degree of comfort afforded their inmates nor the liberality of their management. Scientific training and professional skill, they may truly need, for partisan greed takes no note of such fine distinctions. While Dr. Gundry may have been considered by some who did not come into close contact with him as rash and venturesome, to those who knew his methods intimately he was conservative and cautious. He made no move until he had thoroughly convinced himself of its feasibility and advantage. We who were younger were often impatient that he did not go more rapidly, and our impatience not infrequently brought upon us his criticism and rebuke.

As a conversationalist Dr. Gundry had few superiors. Possessed of a retentive memory, and thoroughly conversant with history and biography, he was most interesting and versatile in the social circle. He was a great reader, and died in possession of one of the finest libraries to be found in any similar institution in this country. On going to Baltimore he at once took a high position in the educational circles of that city of culture and refinement, and was the honored and highly esteemed companion of the brightest and best spirits among her professional men. His death was esteemed an irreparable loss to them in their literary, educational and social circles, and he was followed to his grave by the best citizens of Baltimore.

He was highly esteemed by his board of managers, and their

confidence in him was unbounded. The remarkable results which he accomplished with the meager means which they were able to furnish him, was a revelation to them, and the versatility of his resources and the breadth of his erudition charmed them.

Serving under no less than a dozen different boards in five different institutions, he never failed to command their respect nor to receive their unqualified endorsement.

He was the father of ten children, eight of whom, with his widow, survive him. He was a kind and most indulgent parent and a loving husband. Actuated by the highest and purest motives himself, and of habits the most irreproachable, he exerted a most beneficent influence in the family circle, and leaves behind him a family of children remarkable for the purity of their lives and their obedience to parental authority.

No higher tribute can be paid to any man than that. This is the crucial test of a man's ability to command respect and control the conduct of others, and in this Dr. Gundry was not wanting.

He goes to his grave crowned with the full honor of a life well spent in a most noble cause, while we who are left behind can take courage from the evidences of accomplished results which he has given us, and receive inspiration from the pure and lofty spirit which animated him.

His life was intensely practical. An omnivorous reader, with a mind well stored with the results of his experience, and with a power of expression equalled by few, it is our great misfortune that he was not led to leave behind him in the literature of our specialty, in more enduring form, the record of the results which he had by slow steps and patient research accomplished. We who have led the life of the busy manager of the multiform interests of a public asylum can best understand his failure to do so. The vexatious cares and diverse duties of such a position render connected literary work most difficult. It is this which has thus far caused such a meager record of asylum experiences, and has so interfered with scientific and original work by asylum medical men. In Dr. Gundry's case, the great influence which he exerted upon the practical work of psychiatry is perpetuating itself, and multiplying its power, in every direction, and in the unwritten principles of humanity and liberty, and their extension to the most helpless and unfortunate class of God's children, must we look for the record of his labors and triumphs.

A. B. RICHARDSON.

#### OFFICIAL NOTICES.

STATE OF NEW YORK, STATE COMMISSION IN LUNACY, ALBANY, N. Y., June 24, 1891.

At a meeting of the State Commission in Lunacy, held this day, in the Capitol, Albany, the following circular was prepared and ordered printed, copies to be forwarded to every institution in the State for the care and custody of the insane:

To State Hospitals and all Asylums for the Insane in the State of New York:

In view of the fact that at two of the State Hospitals fires have broken out within a recent period, happily without serious consequences, although at one the flames had made considerable headway and for a time threatened destruction of the building, the Commission feels impelled to call attention of superintendents renewedly to the recommendations heretofore made as to inside fire protection, and to urge constant vigilance and care in carrying them out.

While it believes that these institutions are fairly well equipped with apparatus for the extinguishment of fire, and that the officials are attentive and zealous in seeking to understand its proper use and to keep it in efficient working order, yet in the possible event of fire breaking out in such an institution the danger to the lives and limbs of those hapless persons domiciled therein is so great and so appalling, to say nothing of the property interests involved, that the Commission cannot too strongly insist upon rigid observance of the precautionary measures specified in its former recommendations under this head.

By Order of the Commission.

T. E. McGARR, Secretary.

STATE OF NEW YORK, STATE COMMISSION IN LUNACY, ALBANY, N. Y., June 24, 1891.

To the Boards of Managers of the State Hospitals:

Gentlemen—The Commission in Lunacy is convinced that at all the State Hospitals there are more or less public patients who, while not in condition to be discharged "recovered," may yet be discharged into the custody of relatives or friends or guardians, pursuant to the statute where it reads: "Upon the superintendent's certificate that he or she is harmless and will probably continue so, and not likely to be improved by further treatment;" and it further appearing that in this class of patients there are a number whose personal estate or whose relatives legally responsible for their maintenance are able to defray the cost of such maintenance, and that the aggregate expense of keeping such patients in the several hospitals is a considerable item in the total charge upon the state treasury for supporting its dependent lunaties; therefore, in order to reduce public taxation and to put the burden of support of such patients where, under the statute, it rightfully belongs, it is

Recommended. That from the corps of employes some one discreet and competent man be appointed as agent of the State for the specific duty of looking up the relatives or legal representatives of any and all public patients who may be supposed to come within the above defined category; of inquiring personally or by correspondence into the pecuniary circumstances of such patients or of their relatives who may be legally chargeable for their support: and of investigating and ascertaining any facts relating to such patients that may be useful in determining the question of liability for their support. Such agent to report from time to time to the board of managers, who, at their next meeting thereafter may, if satisfied that the facts in the case justify such action, direct the medical superintendent to discharge any one or more of such patients so ascertained to be not a proper public charge into the custody of relatives or legal representatives. Such agent should be required to devote his whole and exclusive attention to the work and to prosecute it with all possible diligence, energy and zeal, and an adequate compensation should be allowed him. The expense to be incurred for this purpose need not be very large, and is reasonably sure to be greatly overbalanced by the saving thereby effected. And if the result shall justify the continuation of the service as a permanency, the Legislature will be asked to appropriate the sum needed to cover the cost. It is further

Recommended: The Commission deems it useful and important to call your attention to the great advantage, in manifold ways, of supplying means and materials for employing all the available patients, not already occupied in outdoor or indoor service, at some light industrial pursuit which, while not unduly exhaustive of physical energies, may produce the wholesome effect that employment of body and mind when judiciously directed, never fails to have. The Commission has been impressed by a belief that in some at least of the State hospitals, there are too many patients idle who might be employed in some suitable manner, to the promotion of their own improvement and to the better administration of the hospital. It therefore respectfully urges upon the managers and medical officers the propriety of seeking out and applying a remedy for this undesirable dearth of occupation in the hos-Pitals. As a hint in that direction it mentions as possible sources from which to take up some industry that may serve the purpose, the making of brushes, brooms, mats, rugs, straw braid, baskets, wooden ware, willow ware, etc., etc. Approved by the Commission, all present.

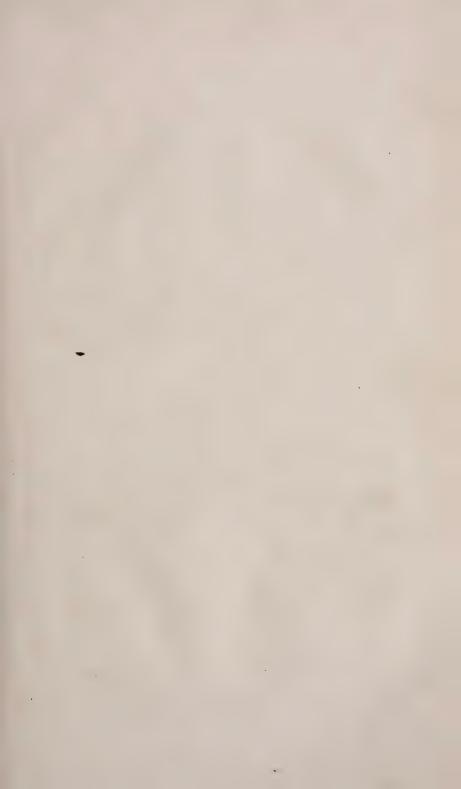
T. E. McGARR, Secretary.

STATE OF NEW YORK, CIVIL SERVICE COMMISSION, ALBANY, N. Y., July 3, 1891.

An open competitive examination of candidates for Junior Assistant Physicians in any of the State Hospitals and Asylums, will be held at the rooms of the Civil Service Commission, Albany, N. Y., Thursday, August 20, 1891, commencing at ten o'clock A. M. A candidate for the position must be a citizen of the State of New York, at least twenty-one years of age, and have had at least one year's experience in a hospital, or three years' experience in the general practice of medicine. For application blank, address the Secretary of the New York Civil Service Commission, Albany, N. Y.

JOHN B. RILEY, Chief Examiner.







J. P. Banort

### AMERICAN

## JOURNAL OF INSANITY.

OCTOBER, 1891.

# THE NEW YORK LAW FOR THE STATE CARE OF THE INSANE.*

BY OSCAR CRAIG,

President of the State Board of Charities of New York, Rochester, N. Y.

You will credit me with sincere regret, and with sympathy in your natural feeling of disappointment, that any event out of our control should have intervened to prevent the presentation of the paper by the person and on the subject appointed at the last conference. But as one of the two substitutes recently assigned in the place of the person of your first choice, I have very gladly acquiesced in the assignment also of two substitutes for the subject first selected, and accepted the one defined for me in my letter of invitation, in this concrete and proper form, viz.:

"The New York Law; and Reasons Urged in Its Favor; and the General Advantages of State Care."

Early in the century the State authorized the town overseers of the poor to send dependent insane to the New York Hospital. A generation later, in 1843, the State Lunatic Asylum at Utica was established. But the great mass of the indigent insane were left in the poor-houses. This condition of things was represented to the Legislature by successive memorials and reports, among which may be mentioned the memorial of the county superintendents of the poor in 1856, and nine years later the report of Dr. Willard. Partial relief was given in 1865, by the act creating the Willard Asylum for the Chronic Insane. Authority to determine what counties should be placed under the provisions of this Act was given by it to the trustees of the

^{*}Read at the National Conference of Charities and Correction held at Indianapolis, Ind., May, 1891.

asylum, subject to the approval of the governor; and in 1870, they with his approval designated all the counties of the State except Albany and Jefferson and the counties independent of the Act, viz.: New York, Kings and Monroe. But the census of the indigent and chronic insane in the designated counties exceeded the capacity of the asylum, being in the proportion of four to one. The result was more than a miscarriage of relief, for it carried to the officers of these counties a legal command which could not be obeyed.

To remove this scandal and to prevent special legislation on the subject, the legislature by a general act, in 1871, delegated to the State Board of Charities, which was created in 1867, authority to grant to county superintendents of the poor exemptions from the Willard Asylum Act, with power to revoke such exemptions, and to issue mandates for the removal of insane inmates of county poor-houses to state institutions. Thus was the legislative embarrassment resolved into an administrative difficulty.

During its administration of this law, through a period of nineteen years, the State Board exempted nineteen counties; recommended, and through the friendly co-operation of county authorities, secured many removals from county to state care; directed and compelled one county superintendent to remove all the insane in his custody to a state institution; prevented all other counties which had applied, save one, from obtaining by special legislation exemptions which it had refused or conditioned; and promoted the act creating the Binghamton Asylum for the Chronic Insane; but failed to secure the translation into law of its other recommendations for further state relief of the same sort; though during the intervening time of fourteen years between the passage of the respective acts for the two state asylums for the chronic insane, there were created three new state hospitals for the acute insane.

The embarrasments of this administration were, (first,) the evident intent of the statutes making state care permanent and county care provisional; but (second), the crowded condition of the state asylums, which required exemptions, in order to reform as well as to legalize the necessary poor-house custody; while (third), the same condition rendered the power to revoke such licenses of county care, or to remove its subjects from county

custody, and thus rightly to reform or regulate county asylums, simply nugatory and practically void.

Throughout these difficulties, the president and the secretary of the State board were loyal to the ideas and spirit which inform and influence hospital or medical treatment. While regarding the temporary rights of counties, under the provisional policy of the legislature, they gave the preference to the practice as well as the principle of state care. The secretary, Dr. Hoyt, at the session of the conference in Madison, maintained the affirmative of the issue in favor of state institutions for the chronic insane against the contention of representatives of Wisconsin for county asylums. In 1882 the former president, Mr. Letchworth, made an elaborate report to the board, showing defects of the exempted asylums and some of their departures from the proper standard.

In the summer and fall of 1888, the standing committee or, the insane appointed by the State Board of Charities, made a special examination of the asylums in the exempted counties, and reported their findings of facts showing the existence of evils which should be remedied, with their opinion of the necessity and nature of legislative relief, to the board; which accepted and adopted their report, and transmitted it to the legislature of 1889. The general conclusions from the facts found were, that the only permanent relief would be secured by state care, or the alternative of county care, so reformed as, among other things, to be governed by trustees appointed by the Supreme Court, which on its equity or chancery side is the guardian of the insane.

The State Board of Charities in adopting this report, did not elect between the alternative remedies presented; but the majority of its members, including all of its said committee, did declare their choice in favor of exclusive state care. This good deliverance was made with due regard to the Wisconsin system as well as the county system under the New York exemption law. The reasons for this choice, therefore, are naturally presented in their relations to prominent points of the rejected systems.

In Wisconsin, the statute provides for the appointment of the trustees of the county asylums by the respective boards of supervisors, thus suggesting pauper features; the general practice appears to be that the superintendents of the asylums are

superintendents of the poor-houses, in which they sometimes reside, (Report of 1887-8, pp 16 and 20); the paupers and the insane have in some counties been housed in the same buildings or in those adjoining or adjacent, (Reports of 1885-6, pp. 39, 48-9, 52 and 58-9; and of 1887-8, p. 5), making open doors, one would think, not so very desirable in all respects; and in two counties prior to 1886, contracts were suffered to continue until the discovery of gross abuses of the patients by the contractors, (Reports of 1883-4, pp. 52-3; and of 1885-6, p. 34); and finally the rules prescribe a sufficient number of attendants, quite indefinite, and medical inspections at least once a fortnight, only one-fourteenth of what should be required, especially in view of the admission that insane persons may be easily overworked, (Report of 1887-8, p. 6), and of the often repeated assertion that the cost of maintenance is reduced by the earnings of the patients. The allusions in the successive reports of the State Board of Wisconsin to the abolition of mechanical and chemical restraints, are in effect no more than simple references to similar reforms in New York and other states; and the frequent mention of patients who are allowed to come and go as they please, evidently applies only to a fraction of about one-third; though it is pleasant to remark that the rule prescribing airing courts, (Report of 1881, p. 18), which should rather be prohibited, appears to have been honored in the breach, and that such enclosures have been abolished (Reports of 1885-6, pp. 28, 38, 42, 44, 54, and of 1887-8, p. 8.)

Little, if anything, is said in these reports as to whether the classification is good, or as to whether there are mixed dormitories or night wards without night attendants, where the cleanly and quiet cases are apt to be keen sufferers from the filthy and disturbed classes.

As one example of the relatively low standard of judgment determined by the legal provisions and procedure of Wisconsin, comparison is here made between two reports on the Ulster County Asylum in the State of New York. The first is a statement of a visit made July 11, 1888, by A. E. Elmore, W. W. Reed and A. O. Wright in behalf of the Wisconsin Board, and published in its annual report for 1887-8, at pages 193 and 194, from which the following excerpt is made, viz:

"Altogether we believe this institution has started on the

right road, and only needs encouragement from the New York State Board of Charities to be made a very good County Asylum."

The second report is of a visit made September 20, 1888, by Commissioners Craig and Milhau of the State Board of Charities of New York, adopted in the annual report of the board issued in 1889 (pages 191-2), in which occurs the following passage:

"In all the day-rooms and connecting hall for the men, are only twelve chairs and two narrow benches without backs, capable of holding each three or four persons, making twelve good seats and about eight bad seats, in all twenty seats for thirty-one patients; while in said ward No. 2, the principal hall with sleeping rooms for the insane men, are no chairs, benches, tables or other pieces of furniture except bedsteads. In the day hall and rooms for the insane women are only eleven chairs and no other seats, and no tables or other furniture for thirty-five patients; while in their principal dormitory hall and rooms are no chairs, benches, bureaus, stands or other pieces of furniture except bedsteads. Two of the associate dormitory rooms, each with seven or eight beds, have only one window each."

Here it will be seen were in the whole institution only thirtyone seats for sixty-six patients. This fact was not mentioned in the report of the Wisconsin Board. Comment on the rule of judgment in the first inspection, as well as on the facts of the situation, is unnecessary.

In observing these obvious defects in the standard as well as in the actual status in Wisconsin, we are glad to note that everywhere they appear to be faults of the law and not defaults of the board, through the exceptional character and diligence of which it is certain there have been many successful contentions against evils (Report of 1885-6, p. 34, and other reports), and that results so far as they are good have been secured.

And it is owing the Wisconsin Board to concede, that, given the situation described, where only ten years ago county care kept patients without clothing, and others on straw, bedded down as for horses and cows, and others over pig pens, and while the State refused or neglected to grant the relief of its own direct care, it was the part of statesmanship and philanthropy in the members of the board to devise the present scheme, and to develop it so well in practice as they have done. At the same time it is due to the truth to say that the Wisconsin county care, as it appears from the clear and candid statements of the said reports, is open to many, if not all of the objections on account of which the New York county care was condemned, and is inferior to the former New York State care of the chronic insane.

It is in accordance with the law of the relativity of knowledge that the foregoing comparisons of the Wisconsin system, which often has been set forth as representative county care, and the following discussion of objections to State care, enter into the consideration of the New York law.

It is often stated that small institutions are more favorable to individual treatment. Experience seems to show the contrary, in public asylums limited in the cost of maintenance. Classification can be secured only by means of many wards, without which there can be no differentiated or individual treatment.

It is sometimes said that in large hospitals or asylums, the medical warden cannot personally care for each inmate. In answer it may be said that the business of the superintendent is to superintend, and the duty of the different medical officers responsible to him, is to give personal attention to their respective cases, as is very well illustrated in the relations of the president and professors of a university.

A cursory reading of the reports of the Wisconsin Board might impress a novice with the notion that county care affords better conditions for occupation and non-restraint of patients. But their successive statistics for February and March of this year show that their State hospitals, though dealing with the acute and more troublesome subjects, put a less proportion of cases in restraint and more in occupation than their county asylums.

The chronical character of cases committed to county care is pleaded in its justification. But "chronicity," if the word may be allowed, is not the equivalent or indication of incurability. Such forms of insanity as general paresis and perhaps primary dementia, indicate from the outset structural changes of the nervous organism. Moreover, general paresis at the last as well as the first stage requires hospital treatment.

The line between curable and incurable cases or changes in the same case is variable and can be discovered, if at all, by medical tests, but can not be determined by a defined period of time or any legal eriterion. It may correspond to one unit of time in an individual, and to ten units of time in another individual, and in either instance may be so uncertain as to require the continuance or repeated recurrence of hospital treatment. At last, if ever, when the poor patient is given over as incurable, he may need the better classification and environment and hygienic conditions of an institution under medical supervision.

On this point there is no better commentary than the deliverance of the County Superintendents of the Poor of New York in 1855, as follows: "Whereas, it is already conceded, and has been adopted as the policy of this State, that insanity is a disease requiring in all its forms and stages special means for treatment and care; therefore, Resolved, That the State should make ample and suitable provision for all its insane not in a condition to reside in private families."

The indigent insane, as paupers, it is said, deserve nothing better than pauper or county care. Implied in this assertion is the assumption that the indigent or dependent insane are paupers. But the premise is false. Nevertheless it has almost always passed current in discussion among laymen, and has sometimes received the imprimatur of distinguished authorities in social science. The fact that almost all the classes in question have trades or occupations and are willing workers, as paupers never are, shows the supposition to be erroneous. The mistake may be due to the pauper care which the dependent insane have received, or to their mental and moral manifestations, which are often unjustly regarded not as effects, but as causes of their disease. The laborer, or artisan, or clerk, or ordinary professional man, does not enjoy an income sufficient to support himself or his wife, the mother of his children, when stricken with a mental malady, in a private institution, and at the same time maintain the rest of his family at home. The victim, therefore, becomes dependent on the public as indigent insane. But it may be safely affirmed that not five per cent. of the inmates of public institutions for the dependent insane are paupers in any proper sense.

The contention of economy is persistently pressed by the advocates of county care. Thus in Wisconsin it is urged that the current rates of expense per week in the county asylums are about two dollars per capita, with emphasis on the point that

they are about one half of those in the State hospitals. But in New York such cost for maintenance for State care in Williard asylum for the chronic insane was only two dollars and twenty-five cents, exclusive of salaries, or about one half that in the State hospitals for the acute insane. Moreover, there were outside of the city and county of New York and Kings county, containing the city of Brooklyn, only two counties which kept accounts of the insane department, and in these two counties such cost was greater than that at Willard. Under the new law the charge for chronic insane in each of the State institutions includes clothing and breakage, and hospital treatment so far as needed, and is fixed at the low rate of two dollars and fifty cents, with the hope that on the completion of the accommodations provided for it may be reduced to the former rate at Willard.

As no issue is ever raised over State hospital treatment of the acute insane, the unreasonable cost of hospital buildings is irrelevant. But recent buildings ordinarily of the expensive class, viz.: infirmaries, have been erected at Willard and Binghamton asylums for two hundred and fifty dollars per capita. These structures, however, were not in all respects up to the proper standard. The new law provides that the expense of additional buildings required for the chronic insane, "including the necessary equipment for heating, lighting, ventilation, fixtures and furniture," shall not exceed five hundred and fifty dollars per capita. Comment is unnecessary.

The history of lunacy legislation and administration in New York, with references to the Wisconsin system, and a comparison of the general advantages of State care and county care, having been given with undue brevity, we hasten to present some of the particular features of, as well as specific reasons for, New York's new law.

The new system makes State care coterminous with public care; with the exception of New York, Kings and Monroe counties, which were independent of the Willard Asylum act; but with the option in each of these three excepted counties to come under the law. Monroe county has already elected to take its benefits and bear its burdens.

The new statute puts the State institutions, including the four hospitals for the acute insane, with the new St. Lawrence Hospital and the two asylums for the chronic insane, upon the same

basis. These seven institutions are now hospitals for all the dependent insane. This feature of mixed hospitals or asylums for acute cases and all chronic classes of the insane was severely criticised by the former president of the State board, Mr. Letchworth, than whom perhaps no alienist or specialist was better qualified to speak from study and travel among institutions in this country and abroad. His opposition to this part of the new system did not, however, lead him to oppose the system as a whole. His noble nature overruled his special objection for the sake of the general movement of progress toward State care.

It is contended by the proponents of the mixed system that its advantages are greater than its disadvantages. Among the grounds on which their contention is urged, are the necessity of preserving an open way for free interchanges between hospital treatment and custodial or domiciliary care, following changes of condition in the same case, and the unwise as well as unscientific nature of the former procedure, under which were statedly removed all the classes who had passed the hospital limit of time and thus had incurred the legal if not the medical sentence of incurability.

The statute provides that the new buildings necessary for the accommodation of the chronic insane shall be erected at a reasonable cost, as already stated; and of more moment, that they shall be on the cottage plan, each with a capacity for population not less than ten nor more than one hundred and fifty patients.

The committee of the State Board having considered the question of the mixed system, and having dismissed it without coming to any conclusion on its merits, were of opinion that in view of the restrictions respecting the cottage plan, and of the abolition of the two years' test, and of the necessity of a reconciliation of all friends of reformatory legislation, it was their duty to support the bill then pending in the legislature; and their conscience being so informed, they acted accordingly, with the active support of State Commissioners William Rhinelander Stewart and Ripley Ropes.

This bill being in substance the same as the law in its present form, had, prior to the adoption of the report of the committee by the State Board, been introduced into the Legislature by the State Charities Aid Association. This society has for its president Professor Chandler of Columbia College, whose honored name is associated with good work in many public reforms, and it has for many years been composed of prominent citizens, including leaders of thought in Church and State and in benevolent and scientific circles. But it is acknowledged with common consent that the one person who initiated the movement for revision and reform of the lunacy law, and inspired it from beginning to end with the idea of exclusive State care, and carried it by persistent force and wise argument to success, is Miss Louisa Lee Schuyler.

Then the representative alienists and medical faculties, and most of the enlightened publicists of the State were united in support of the same measure.

In a matter concerning not the administration but the reformation of the law, there was no reason why members of the official board should not act with unofficial but enlightened and representative bodies, in securing a system which if not absolutely is relatively and reasonably good, and which is a decided improvement on that which it has supplanted.

With these combined forces the bill was nearly carried through the Legislature of 1889, passing the Senate and failing only by a few votes in the Assembly. An associate bill drawn by Dr. Stephen Smith, the former distinguished commissioner in lunacy, and favored and forwarded by the same committee of the State Board of Charities, was enacted at the same session of the Legislature, creating a commission in lunacy. On the appointment of its three members, only its learned and accomplished chairman, Dr. Carlos F. MacDonald, had pronounced in favor of State care, while one of the others had been its radical opponent. But after official investigation the commission became a firm unit in favor of the bill which had so nearly become a law; and with its former friends did excellent service in procuring its enactment by the Legislature of 1890. These reminiscences serve to commend the abstract merits of the measure, and also the personal merits of opponents as well as promoters of the movements; and tend to make the advocates of the reform charitable toward its early adversaries. In this spirit of mutual respect and confidence, it is hoped that persons of all opinions will accept the logic of events, at least provisionally, and join hands in all just measures for a fair trial, on which if the law should fail, it would be expected that its friends would contribute to joint efforts for its modification or the substitution of another system.

In this matter the leaders of the political parties have been superior to partisanship. The record would be incomplete without mention of Governor Hill and of influential members of the Legislature, including Senators McNaughton, Fassett, Stewart and Robertson, Assemblymen Crosby and Acker, and others who secured the reformatory legislation to the State of New York.

The syllabus of the law prepared and published by the State Charities Aid Association, is with permission appended.

There is no actor in the movement, now happily consummated, who is authorized to give a compendium of all the grounds on which all the movers were actuated in urging the enactment of the measure. But it is believed that such a complete synopsis would include the following summary of reasons, viz:

First. The medical supervision of the State Hospital, with its semi-daily inspection of all its patients by competent and trust-worthy physicians, and the absence of anything like it in the average county poor-house or asylum, are reasons enough for exclusive State care.

Second. The more beautiful environment of the State institution, with its adaptations and facilities for graduations and variations and successions of scene for different patients or phases of the same patient, tending to excite more healthy correspondence in their nervous organisms, and playing often the chief part in recovery, is sufficient to justify our contention in favor of State care.

Third. The county institution with four wards, being two for each sex, has most inadequate means for classification, in that seldom will the cleanly and quiet cases be simply equal in numbers to the filthy and disturbed classes, so that almost always will such wards which the casual or superficial observer might call homelike in the daytime, become in the night season, without night service, filled with disgusting and repulsive horrors for the better classes of patients.

Fourth. Inasmuch as one hundred patients need as many classifications as do one thousand, but with wards containing twenty-five inmates each, the former population would fill only four, while the latter population would fill forty wards, it is manifest that the State institution with the larger census has the advantage over the county institution with the smaller census.

Fifth. Moreover the State institution alone is likely to have the means for changes of classification to meet the demands of changes of cases and above all changes in the same case.

Sixth. The labor of the State patient is for his own benefit under medical supervision, while the labor of the county patient is for his own support without medical supervision.

Seventh. In fine, the State institution always, and the county institution almost never, treats its patients as sick persons, as in fact they are, whether suffering from acute attacks or succumbing as chronic invalids.

Eighth. The pauper associations of county care, caused by putting the indigent insane in the poor-house or in a building adjoining or adjacent, or on the poor farm, or under poor-house officials, are degrading to the indigent or dependent insane, who, as has been shown, are seldom paupers.

Ninth. Individual care is practicable to a greater extent in a State institution, though larger, because its medical and personal treatment, its more extensive, varied and inspiring environment, and its means for more correct and complete classification, differentiate the treatment in accordance with the differing cases and changes of the same case.

Tenth. Though the mixed system is not essential to exclusive State care, it has one important advantage in the opportunity which it gives for transfers back and forth between hospital and custodial or domiciliary treatment and care, following successive changes in the same case as well as changes of cases.

Eleventh. While constant watch and ward by a central commission or board is impossible, it is the part of wisdom to provide a smaller number of larger institutions under the immediate control of medical superintendents of high honor, in order that the continuing influence of the supervising body may be kept alive in the intervals between its visits of inspection. Another and a similar advantage of such superior institutions is that they may be held to a reasonable standard without reducing them to one dead level of uniformity; but with the liberty which, within proper limits, leads to the differentiation which is the law of development.

Twelfth. Though State care is based on humanity and not on economy, it is, as has been shown, not less economical, while it is more humane.

Thirteenth. The system of exclusive State care is more practical as well as philosophical in its simplicity, as compared with the former exemption system in New York, or the present Wisconsin system, which introduces State administration to correct the evils of county administration, and which so far as it ensures good results is in reality qualified State care, encumbered with useless machinery, engendering unnecessary friction and producing wasteful loss of power as evidenced in limited results.

Fourteenth. New York's new law is a development from first principles of State care in the Willard Asylum act; it is an evolution or growth, and not a special contrivance or creation.

Fifteenth. While the county is for practical purposes, the political unit, it is, as such, only a small and subordinate part of the whole, which is the State paramount and sovereign. The criminal law recognizes this principle, in determining not only the nature and penalty of felonies and other offenses, but their place as well as mode of punishment. Lunacy legislation even more legitimately proceeds upon the same basis, for its subjects, the insane, both by statute and common law, and in respect of person as well as property, are the wards of the State.

#### A CASE OF LETHARGY.

BY C. K. CLARKE, M. D., Superintendent of the Kingston Asylum, Kingston, Ontario.

The records regarding cases of lethargy are very incomplete and it is seldom indeed that one has the chance to study a typical case.

Literature on the subject is scant, and it is my belief that we have much to learn regarding the actual condition of the nervous system in lethargy.

The eminent physiologist, Professor T. Wesley Mills, has suggested to me that in certain cases we have a condition analogous to that of hibernation in animals; and truly at least one case in Canada, where the patient is awake all summer and asleep all winter, would give color to this belief. There are other striking points of analogy between animals during the period of hibernation, and some human beings in a state of lethargy.

This subject is enticing from the standpoint of the evolutionist, and might profitably be discussed, but just now the time allotted for this paper will be taken up in describing a remarkable case of lethargy that came under my observation last year.

This case is almost unique, and by a continuation of happy chances it was possible to obtain accurate and minute details regarding the patient, and put on record observations that were divested of the element of the wonderful so generally supplied by the non-scientific observer.

Several seasons ago I heard that there was a patient who had been in a trance for years, and from time to time word was brought to the effect that the condition still persisted, and all efforts to rouse the woman were without result.

A little more than a year ago I obtained permission to visit the patient, but was not allowed to make any extended examination.

On entering the room I found a thin, old woman in bed, apparently fast asleep. Her respirations were irregular and varied much during the visit (almost half an hour), running all the way from 24 to 44 per minute. The pulse quickened in a marked



CASE OF LETHARGY



way during my stay, and ran up from about 80 to 120. The woman had her eyes half closed, and to all appearances was oblivious to everything that was going on.

The nurse gave many details regarding the patient and made a number of statements, some of which I shall repeat in a few minutes. Many of these statements we were able to verify at a subsequent period; others were undoubtedly inaccurate.

Before going into details regarding the every day life of this case of lethargy, as we saw it ,perhaps it would be well to give a brief outline of the history of the patient.

Unfortunately it has not been found possible to get as many important facts as could be desired in connection with this history, but great care has been taken to eliminate all doubtful points.

The patient was born in 1820 or 1821, and when she came under observation was almost sixty-nine years of age. The neurotic history was pronounced on "both sides of the house;" evidence going to show that her father had suffered from melancholia. A reliable person states that the father died from "softening of the brain"—possibly general paresis. The patient's mother was subject (a member of the family states) to attacks of partial loss of reason, which could only be cured by change of air and surroundings.

Unfortunately it has not been possible to get an accurate account of these attacks of "partial loss of reason." The patient's early history is not well known, but it has been stated on good authority that she was "peculiar," and in child-hood complained of some head trouble that caused her to keep her hair cropped short. She was married when very young, probably when seventeen or eighteen years of age, as she was but twenty-one when her third child was born.

Three years after the birth of her last child she was noticed to undergo a change in disposition and acted "strangely." She could not be depended on, was untruthful and whimsical, and worried a great deal about trifles.

It is from a subsequent date (three years later) that the history of this case must be dated.

The son (the youngest child) says: "The first recollection that I have of mother's sickness was when I was six years old. My little sister had died and I was just recovering from an at-

tack of scarlet fever when she was taken down. I think the attack was caused by grief over sister's death, and over-exertion and want of rest. I do not remember how long she was sick at that time, but I recollect that her left side was completely paralyzed and that after a time a strong liniment was used, which partially removed the paralysis, and when she went to the country for several weeks she came back well.

The second time that she was taken sick was when I was twelve years old. She felt poorly for some time and was then taken with fits, or convulsions, which lasted for I think three days, having sometimes four or five in an hour. She was confined to her bed for I think about two years, in very much the same condition as at present. I do not know what curative means were employed, but she gradually improved a little, and was again sent out into the country, where she seemed to recover.

She enjoyed pretty good health for about six years, but had to be very careful; she never drank tea or coffee and always had to have the hair on the back of her head cut short.

About this time her father was taken sick and we moved into his house to take care of him. This seemed to affect mother, and after a short time she was again taken with fits and soon went into her former condition.

During this sickness, which lasted about two years, she used to sit up a great part of the time and appeared to be perfectly conscious. She knew father and those who waited on her, used to call me her boy, but appeared to be in a sort of a stupor most of the time. She was again sent into the country and came back well.

Then ensued a brief interval of about two years, during which time she was in fair health, but was again taken down as before and was sick for nearly seven years. During part of this time she was very low, and we watched day after day at her bedside expecting each day would be the last; but she again rallied and gradually her bodily strength and reason returned to her.

She was well for about five years, when she seemed to be taken with a low fever and gradually went down to her present condition."

Such is the son's account of the case, and from it we learn that the history of nervous trouble dates back at least forty years, and the inference is that the first indications of lethargy then made their appearance. The details of the conditions that existed during the different attacks are almost entirely wanting, and it is unfortunate that we are left almost completely in the dark regarding the nature of the convulsive seizures that occurred. Subsequent history would lead us to believe that these were in all probability hystero-epileptic in origin.

About the year 1862 the patient fell into a state of lethargy that lasted for seven years or more. The condition was not one of complete unconsciousness, and although the woman appeared to sleep almost continually, occasionally she would wake up for a minute or so at a time and converse in a rational manner.

It is not possible to make more than general statements in regard to these attacks, but it is beyond doubt that the conditions were not identical with those that characterized the last attack. Evidently the condition of lethargy was not so profound.

The announcement of the death of a warm friend was the immediate cause of her awakening. The return to even an approach to a normal condition of health was a very gradual process. She was lachrymose and childish for some time, and could not use her limbs properly for months; in fact, had to learn to walk again.

During the period of wakefulness that now ensued—seven years or more—the patient, to a certain extent, interested herself in the affairs of every day life. She went about the house, &c., but was very quiet and did not seem able to concentrate her mind on anything. Her memory was markedly deficient, and she seemed astonished to find people and places changed, and could not realize the fact that she had been asleep for such a long time.

When waking up from her long sleep one of the first requests made was for beer; and strange to say the same want was expressed many years after when arousing up from a subsequent attack.

About thirteen years ago the patient gradually passed into the condition in which we saw her. At first she spoke occasionally but in a childish manner, and often made a request for meat and potatoes, invariably using the following words: "Meat and potatoes, a plate all full up to the top."

Before giving the details of the case as we saw it, it will be well to repeat in a general way the statements made by the nurses

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who had the care of the patient before she came to the Asylum. They say: "She seems to exercise a certain amount of discrimination regarding her food, and will eat enormously or not at all, and when her appetite is not lost does not seem to know when she had had enough. Her diet is made up of minced meat, potatoes, soft toast, milk, &c., and she is particularly fond of meat and potatoes, in fact will not touch anything until meat and potatoes are provided. She does not like sweet things. When not suffering from diarrhoa eats three times a day. Eats as much as any healthy, active woman of her age. Objects to nauseous drugs, and endeavors to push the spoon away with her left hand.

"The attitude during the day is quite different from that assumed at night, and the patient undoubtedly sleeps more soundly at night than during the day. In the day time her legs are extended: at night drawn up. In the day time she is put either on her back or right side, at night on her left side, and remains in this position until morning without moving—in fact, cannot roll over. Will not settle down for the night until a drink of cold water is given. In the day time, sometimes for an hour or so at a time, appears to be nearer a condition of consciousness than at any other time. This occurs generally after breakfast, but she has to be roused for all of her meals.

"When heavy bed clothing is put on the bed attempts to shove the blankets off with her left hand, and likes to be very lightly covered. The eves are three parts closed during the day and completely closed at night. The face sometimes becomes flushed. She never speaks, and in fact has spoken but once in eleven years or more, and that was quite recently (1890), when she said 'I am not asleep.' Her appetite has been better since she has been in the long sleep than it was before, and she eats things she would not touch when awake. At least once during the present attack she has, unassisted, got out of bed, and there is reason to believe she has done the same thing several times, but not within three years, as her physical condition renders it impossible. Several times the nurse fancied the patient was moving about the room at night, but for sometime could not actually prove that such was the case. At last, however, a fall was heard in the middle of the night, and the patient was found lving fast asleep at the bottom of the stairs, down which she had fallen.

"During the present attack she has fasted on several occasions, and once went fifteen days without food." It must be remembered that the nurses were speaking of the last attack and at a time when the patient had been in a state of lethargy for more than eleven years.

In September, 1890, Professor T. Wesley Mills and I saw the patient. This was my second visit. We found the patient, an old woman, in bed. She was lying on her back with her eyes half closed. Her face when we first entered was somewhat flushed and respiration rapid. When respirations were closely observed it was noticed that they were most irregular, and at times ceased for several moments. They averaged 22 per minute. Pulse was 104, fairly strong and regular, arteries almost free from rigidity. Axillary temperature, 98%. The nurse stated that ordinarily the patient's bowels moved but once in three days, but latterly she had developed a tendency to diarrhoa, and since that had evinced a sense of discomfort until the bowels were relieved. This sense of discomfort was evinced by whining like a dog. Ordinarily she would not give any indication that she wished to relieve herself, but the presence of the bed pan would excite the reflexes. She does not soil the bed. The statement of the nurse in regard to the amount of urine passed every day was, that a little more than half a pint would be a fair average.

A physical examination of the patient was made. The left foot was drawn as if there were a contracted Tendo-Achillis; right foot drawn down but not in such a marked manner as the left. Marked rigidity of the right knee and leg: left leg and knee not rigid. Right ankle easily moved; left rigid. Patellar reflexes absent. Tickling the soles of the feet did not cause any evidence of sensibility. Each great toe was drawn under the second toe, this condition being especially marked in the left foot. When the soles of the feet were tickled it was thought that the respirations were slightly deepened, but on account of the irregularity of this respiration it was difficult to determine this point, and it was considered undecided. Patient's hair grey; nails healthy and not abnormally brittle. Facial reflexes better than reflexes in any other part of the body. Orbicular reflexes good even with air; at the same time it was noticed that flies crawling over the face did not excite the reflexes. Pupils responsive to light. Small bed sores found on hips and evidence of former deep-seated bed sores plainly visible.

While we were present the nurse endeavored to arouse the patient and tried to get her to take some food. A feeble protest was made (whining), the patient winked for a few moments, and then went off to sleep again. Bread was put in her mouth, but remained there without any effort being made to swallow.

On October 9th, 1890, the patient came under my care, and it was possible to make a series of observations of the most complete character. In this paper I shall merely indicate in a general way the conditions that were found to exist, but I hope to be able to publish more elaborate details before long.

The patient, a thin old woman, apparently not weighing more than sixty pounds, was carried into the infirmary from the ambulance, and placed in bed. She was asleep and did not seem disturbed by the jolting to which she had been subjected. Her temperature was 97½°, pulse 107, and respirations 20. Efforts were made to arouse her, but without avail. Friends stated that she had been in her present state of lethargy for more than eleven years.

Her eyes were half closed, and it was found almost impossible to get her to swallow anything. Next morning her temperature was about normal; pulse 117, respiration 18; still asleep with the eyes half closed, as she remained nearly the whole time she lived.

She was under observation from October, 1890, until February, 1891, when she died. In these four months she was closely watched, and until the last week of her life gave little indication that she had the slightest knowledge of the fact that she lived.

She would remain in any position in which she was placed in bed, and if not fed, would undoubtedly have died without making any sign that she required or desired food. Her temperature was almost invariably subnormal, sometimes falling to 95,° although occasionally it would rise to nearly 102°, without any cause that could be determined. Her appetite was capricious, although she undoubtedly had decided likes and dislikes in regard to food. She preferred beef and potatoes to anything else. The process of eating was very slow, and sometimes it would be more than an hour before she could finish a meal. When she

drank anything, milk was evidently preferred. She was very clean in her personal habits, and never solled the bed.

The quantity of urine passed was very small, not averaging more than one seventh of normal. The bowels moved but seldom, sometimes only once in six or seven days. It was possible to rouse her for a moment or so, to the extent of making her open her eyes, but beyond this she would give no indication of consciousness, and went to sleep again immediately. Her legs were nearly always drawn up, although when the patient was admitted it was stated that she always straightened her legs at night. Her feet were almost invariably very cold, and the hands sometimes so. Occasionally her eyelids would tremble and quiver, just as they will in a patient suffering from hysteria. Generally when much bothered, would for a few moments make a sort of whining protest.

The facial expression was quiet, almost deathlike, under ordinary circustances, but sometimes when undergoing examination, an expression suggestive of pain would appear; at the same time it is questionable if pain was really experienced, as the heart and respirations did not show the least disturbance.

A large amount of fool for one so frail was consumed in a day, although on some occasions the appetite was completely lost. Sometimes when suddenly disturbed would start nervously, and her hands would tremble. Trained Nurse Osborne, who was with her very constantly, seemed to think that there were times when she was nearer a condition of consciousness than at others, and as this statement was also made by her former nurses, possibly it is correct.

Occasionally she would push down the bed clothes with her hands, and the history of the case would go to show that heavy covering was always objected to.

Nearly every day she was propped up in a chair for half an hour. This did not seem to have any effect on her state.

I shall now detail several examinations made by Dr. Webster and myself. These will convey a general idea of the general conditions:

December 31st, 1890—To-day Dr. Webster and I submitted the patient to a thorough examination, and the patient seemed in an unsually favorable condition for this.

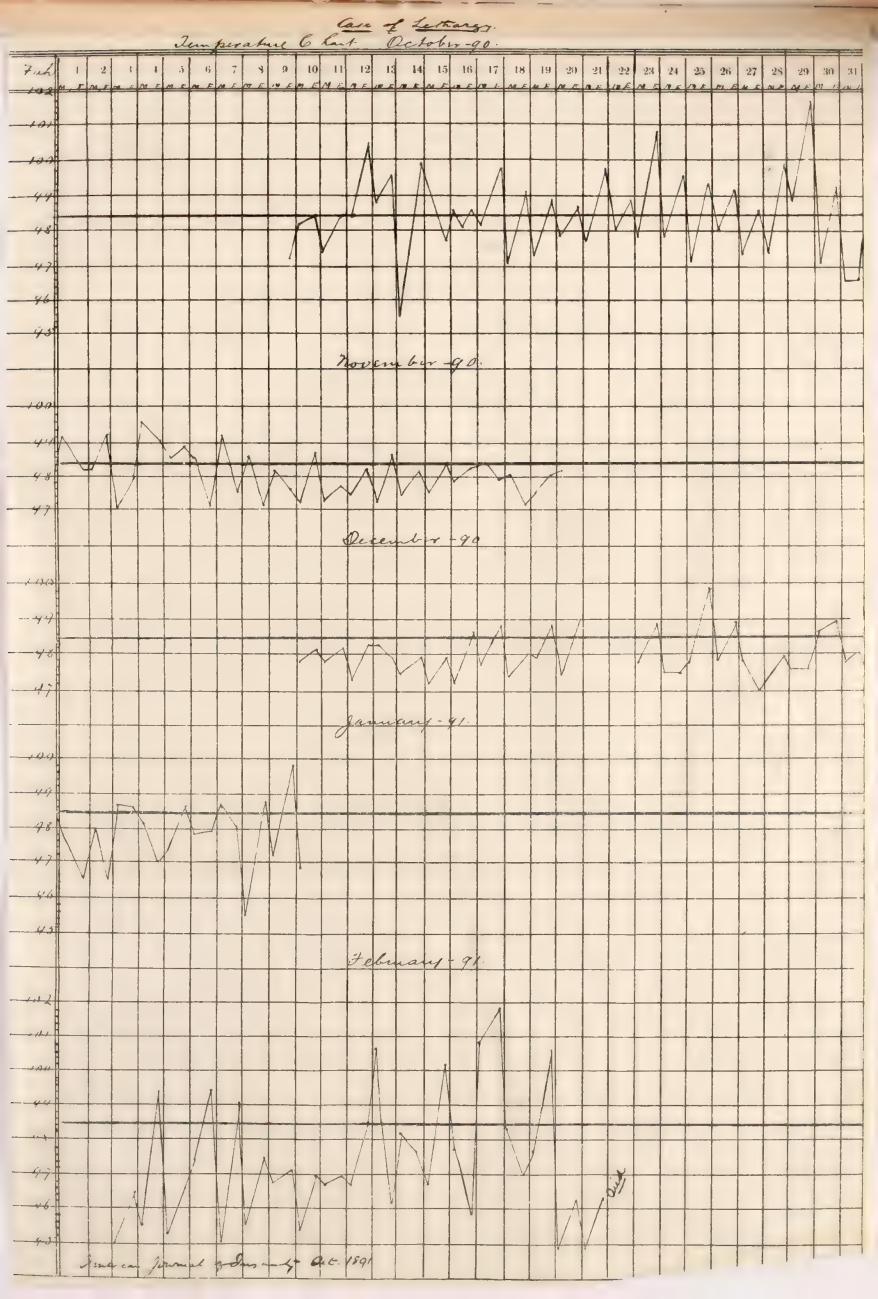
When we entered the room she looked quite bright, and ap-

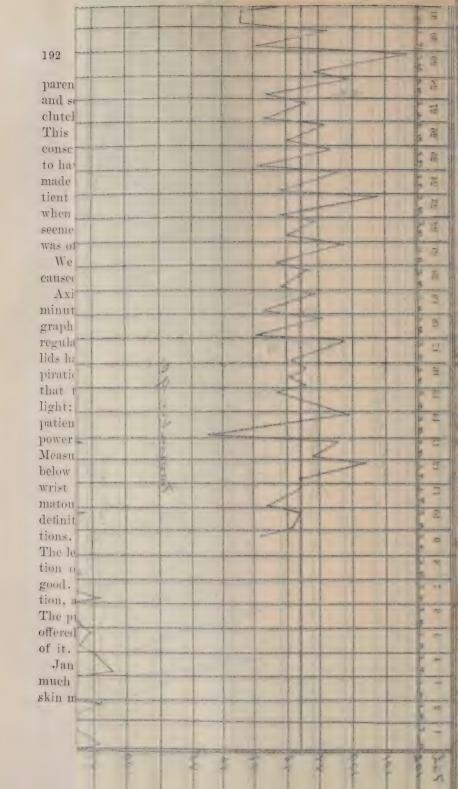
parently was trying to talk to herself. Was offered an apple and seemed glad to get it: stretched out her hand to take it and clutched it eagerly; a moment afterwards was fast asleep again. This is the first time that I have seen any marked evidence of consciousness. We roused her again at once, and she seemed to have forgotten the fact that she had an apple in her hand, and made no effort to eat it. The nurse informed me that the patient seemed to show a desire to have an apple the night before, when apples were being distributed in the infirmary. She seemed to follow the nurse with her eyes, and when an apple was offered took it at once, but made no effort to eat it.

We attempted to take the temperature in the mouth, but this caused so much irritation that we had to give up the attempt.

Axillary temperature right side, 6 minutes 963: left side, 6 minutes 963. Right hand was folded on chest, as shown in photograph: left hand with fingers spread out. Respiration 25, fairly regular. Pulse 87, regular: quality fair: compressible. Evelids half closed. Five minutes after we entered the room, respirations were only 21. Reflexes-It may be broadly stated that the skin reflexes were found good. Eves—responding to light: pupils regular and equal. When ulnar nerve was pressed, patient seemed to suffer a little pain. Appears to have grasping power of right hand, and fairly good grasping power in left hand. Measurement of hands-Circumference of right hand just below the knuckles 54 inches; left hand 54 inches; right wrist 43 inches; left wrist 43 inches. Left foot @dematous. Plantar reflex present. At this examination it was definitely determined that tickling the feet deepened the respirations. Patellar reflex-Right leg. absent: left leg. absent. The legs were bent, and at the knees there was slight contraction of the tendons. No anchylosis. Abdominal skin reflexes good. The patient slept soundly through the whole examination, and did not seem to be upset in any way by our presence. The pulse was at this time 80. We roused her once more, and offered her the apple, but could not induce her to take any notice of it.

January 16th, 1891—Apparently asleep: cheeks, nose and chin much flushed; lying on left side; thighs and legs slightly flexed; skin moist; face and body hot; hands warm, feet and lower half





of legs chilly, thighs and upper half of legs warm.* When placed on back, offered resistance; showed her annovance by drawing down corner of mouth, and appearing to cry; eyes opened and she blinked a good deal; lips and jaw moved as if speaking; nothing audible; in a few seconds relapsed into her former state, gradually turning her face over to the left. Left hand spread out over chest, palm down and fingers spread out: fingers could not be retained in any other position except by force, and were quite rigid. When arm was placed in another position, not immediately returned, but was after a time. especially if the patient was disturbed Right arm by side, hand partly closed: this seemed the favorite position, for when moved was after a time returned; when the hand was forcibly opened, not immediately closed again. Pulse 104; fairly good. Five minutes later 90. Ten minutes later 100. Pulse quickened when patient was disturbed, but the quickening was very slight.

Respirations 24, regular and deep; abdominal in character. Temperature, mouth. 98.3 (5 minutes.) Temperature, axilla, 98.2 (10 minutes.) Reflexes—Cornea good; merely tickling the face seemed to cause no annoyance. Epigrastic reflex very slightly marked, much less than it was when we examined the patient a few days ago. Patellar reflex entirely absent. Plantar reflex present to a slight extent, but not marked as it was before. Some cedema at ankles.

January 30th, 1891—In company with Dr. Webster examined the patient this afternoon, When we entered the room, it was observed that E. B.'s face, nose and chin were much flushed. The nurse informed us that this flushing is frequently much more marked than it was this afternoon. Respirations taken before the patient was disturbed were 28, very irregular. Pulse taken before the patient was disturbed 95, irregular. When I describe it asirregular, I may state that this description was based on the fact that in one half minute we would get 45 beats and in the next half minute 50, and so on. As usual whenever the patient has been visited by us, the right hand was tightly closed, the left spread out. Feeling that there might be an element of doubt in regard to the temperature tracings furnished by the nurse, a tested thermometer was taken for the examination, and for the

^{*}Room very warm, and bed by radiator. Nurse says that under these conditions hot water bags often have to be used to obtain warmth.

sake of comparison. The result showed that the readings furnished by the nurse are to be depended on, as several comparisons of thermometers showed but one trifling fractional variation. Temperature—Left axilla (7 minutes,) 1st thermometer 98; 2ā thermometer 98. Right axilla, 1st thermometer 98; 2d thermometer 98;

Eyelids and lips were twitching, and lids and tongue trembling. Reflexes—those of the face and eye normal, abdominal skin reflexes present, but not good; plantar reflexes not well marked, although undoubtedly present; patellar reflex, left side absent, and probably absent on right side, although at one time we thought a trace was to be found. Tickling the feet did not, as on a former occasion, seem to deepen the respiration, and during the whole of the examination the respirations were shallow, and of an abdominal character. Hands fairly warm, feet chilly, but not as cold as usual. Circulation in other parts of the body excellent. Feet cedematous. Respirations after examination 25, somewhat irregular. Pulse after examination 97, quite changed in character. When we first entered the room it was full and of good quality, now it was weak and thready in character.

Early in February, 1891, a marked change took place in the patient's condition. Diarrhea developed, and the woman was evidently suffering pain. On the 4th of February was undoubtedly awake and in the evening spoke in a hoarse whisper asking for a sour drink. This was the second time she had spoken in thirteen years. On the morning of the 5th of February again asked for a drink, yawned twice and fell asleep again. In the afternoon was again awake, fed herself in an awkward way and in the evening spoke again in a natural manner. I sent for her friends and they endeavoured to get her to take notice of them, but she did not appear to know them and went to sleep as usual. The trained nurse's notes for the next few days are as follow:

"February 6th—Will feed herself with bread or anything dry. Hand shakes too much to use a cup or spoon. Will ask for anything she wants, but will not speak at any other time. Always uses her left hand.

February 7th—I was called in about 4 A.M., and found her lying on the floor; she would not speak, but from all appearance no one had touched her; she had evidently gotten out of bed

herself. A 9:30 a.m., she was cold and very white looking; about fifteen minutes later after her face was flushed and moist, body warm, hands, knees and feet cold. This soon passed off, leaving her in her former condition. Temperature was 95%, lower than at 8 o'clock. This afternoon asked for a sour drink, and a big big cake. Spoke hurriedly, but quite loudly and distinctly. Kissed the nurse twice when asked to do so.

February 9th—Has not been well at all to-day. Moaned when disturbed. Has eaten searcely anything, but has taken more milk than usual. Has had slight diarrhoea since last Tuesday; worse to-day.

February 11th—Asked frequently for drinks to-day, and last night said her throat was burning. Does not appear to recognize any of her friends nor to realize that she is among strangers. So long as her wants are attended to she seems quite unconscious of anything else—not exactly unconscious either, but as though she took no interest in what went on around her.

February 12th—Is better this morning, had no diarrhoa during the night. Has asked three times for something to eat, which sounds like meat, but when I get it for her she won't eat it.

February 13th—Diarrhea much worse to-day.

February 13th—Diarrhœa somewhat better.

On the 16th, she was slightly better and asked for beer and cocoa and said she felt as if she were burning up. From this time she steadily grew worse and died on the 26th."

I might here state that Dr. Ruttan of McGill University made elaborate analyses of urine sent to Montreal from time to time, and without making any detailed statement here I may say that the general conclusions arrived at were as follows: The whole of the urine passed in six days was sent and he says the total amount if representing six days urine is about one seventh the normal. This contains all constituents in about normal quantities in relation to the volume of the urine, except the phosphoric acid, which is about one-third what it should be.

### AUTOPSY.

## Inspectio Cadaveri.

Nutrition poor; body much emaciatel; apparent age 65 to 70; weight about 50 lbs; rigor mortis complete. A. M. stain-

ing on hands and feet; P. M. staining on back of trunk; bedsores on sacrum, tip and ball of great toe; feet and ankles cedematous: legs flexed on thighs by contracted tendons; no teeth, and jaws much absorbed.

#### Sectio Cadaveri.

HEAD.—Scalp thin and easily dissected; calvarium of average thickness: tables thin however, diploe being in excess; Dura Mater not adherent to the skull, slightly opaque at vertex; one slight adhesion to brain at margin of longitudinal fissure; ante mortem clots in longitudinal and lateral sinuses, the clots in the lateral sinuses being particularly well organized.

BRAIN.—The brain weighed about 35 oz.; macroscopically, it was healthy in appearance: in fact in Asylum experience I have never seen as healthy a brain in the post-mortem room.

Convolutions well marked and sulci deep; grey matter abundant; brain substance firm: ventricles free from evidence of disease; brain not examined microscopically.

Thorax.—Sub-sternal adhesions-Emphysema of cellular tissue beneath sternum; cartilages not ossified.

HEART.—Small; weight  $3\frac{3}{4}$  oz. Pericardial fluid, average quantity: blood in great veins, and right auricle fluid; walls of right auricle and ventricle unusually thin; valves normal; small post-mortem clot in left ventricle; walls of left ventricle hypertrophied; left auricle normal; valves of left side normal.

AORTA.—Ascending aorta dilated into a fusiform aneurism; capacity about twice that of normal; arterial coats not thinner that normal; no evidence of atheroma; no pressure effects noticed: varicose veins on posterior walls of the heart; abdominal aorta atheromatous; ante mortem clots in abundance.

Lungs.—Right: Very adherent at apex; small adhesions all over surface of lung; apex, a mass of tubercle: in fact, tubercles were found scattered throughout the whole lungs, and in the apex a small cavity existed; hypostatic congestion marked.

Left: In this lung a certain amount of hypostatic congestion was apparent, and an occasional tubercle was found; otherwise the lung was normal; cord-like adhesions of pleura on surface.

ABDOMEN—Liver adherent to chest walls and diaphragm; whole capsule tore off in taking out and remained attached to

diaphragm, and abdominal wall; weight, 20 oz.; three vertical furrows present on anterior surface of right lobe; these furrows were about two inches in length; centre one distinctly marked; nutmeg condition present.

STOMACH.—Large; about two inches from pyloric orifice was a constricted portion.

This condition was undoubtedly not the result of any inflammatory action, but the natural shape of the stomach, giving rise to an appearance suggestive of a rudimentary second stomach.

INTESTINES.—Small; evidences of an old peritonitis; adhesions everywhere; there were several constricted portions from three to six inches long; in no place was there complete stricture, and no scars were present; Above the constricted portions the intestine was much distended.

CAECUM.—Walls much thickened and much venous congestion; inner surface dark red, and roughened; had appearance of numerous varieose veins in wall.

ASCENDING COLON.—One portion constricted, and part preceding dilated; transverse colon, normal; descending, slightly dilated.

Kidneys.—Right; Very small, about 2½ inches long; apparently normal. Left: about an inch longer than right: apparently normal; capsules non-adherent.

McGill Univ.Med. Faculty. Chemical Laboratory.

(('opv)

MONTREAL, March 6, 1891.

No. 226. Feby. 10th.

Name. Case from Kingston. (E.B.)

#### ANALYSIS OF URINE.

Total urine, 1120 C.C.

Color High. (Reddish yellow.) Indoxyl, in excess: odor faint, normal; chlorides, 7.042 grms. (total); reaction, acid; sulphates, as (sulphonic acids, 0.196; alkaline, 1.772.)

Specific gravity, 1019.5; earthy phosphates, 1.34 grms. Phos. acid.

Pigments. Nothing abnormal. Alkaline. Urea. total

amount, 35.01 grms; uric acid, total amount, 1.06; albumen, trace—too small to estimate by Esbach's Albuminometer. Dextrose, none; acctone, none; diacetic acid, none; bile pigments, none; bile salts, traces. Total solids: Total solids in 1120 C. C., 51.63 grms.

Microscopic Examination: No casts, excessive epithelium; amorphous urates, and considerable granular amorphus organic matter not urates nor phosphates. No pus.

REMARKS.—The total amount, if representing six days' urine, is about 1-7 normal. This contains all constituents in about normal quantity; in relation to the volume of the urine, except the phosphoric acid, which is about one-third what it should be. The amounts excreted each day are:

Reaction at Time of Collection: Jan. 27th, 6 p. m., 1 oz., acid; Jan. 28th, 6 p. m., 3 oz., acid; Jan. 29th, 7 p. m., 6 oz., acid; Jan. 30th, 6 p. m., 3 oz., acid; Jan. 31st, 7:30 a. m., 4 oz., acid, neutral; Feb. 1st, 7:30 a. m., 6 oz., acid; Feb. 2d, 7 a. m., 1 oz., acid (slightly); Feb. 3d, 7 a. m., 7 oz., acid; Feb. 3rd, 6 p. m., 6 oz., acid.

[Signed.] R. F. RUTTAN, B. A., M. D. Lecturer in Chemistry, Med. Fac. McGill Univ.

Details regarding amount of nourishment taken by patient E. B. during her residence in the Asylum Infirmary:

Oct. 9th, 1890—Admitted at 5 p. m., took very little supper.

Oct 10th—7:30 a. m., milk, 3 oz.; 7:30 a. m., milk, 2 oz.; 12 m.. small quantity of meat and potatoes and a little pudding; 5 p. m., had scarcely any supper.

Oct. 11th—7:30 a. m., milk, 4 oz.; 9:10 a.m., saucer of porridge and milk, 8 oz.; 12:30 p. m., ate a good supper; 5:30 p. m., supper.

Oct. 12th—8:30 a. m., porridge and milk; 12:30 p. m., meat and potatoes; 5 p. m., supper.

Oct. 13th—7:30 a. m., breakfast; 12:30 p. m., meat, potatoes and milk; 6 p. m., bread and milk.

Oct 14th—8:30 a. m., porridge and milk; 12:30 p. m., meat, potatoes and tea; 5:30 p. m., bread and butter, boiled egg and tea.

Oct. 15th—7:30 a.m., porridge, milk and tea; 12:30 p.m.. soup, meat, potatoes, biscuit and tea; no supper.

Oct. 24th—7 a. m., porridge and milk, egg, bread and tea; 12:30 p. m., fish and potatoes, beef tea, bread and rice pudding; 6:15 p. m., pancake and tea.

Oct. 25th—7 a.m., porridge, milk and coffee; 12:30 p.m., potatoes and meat, bread and soup; 5:30 p.m., oyster soup, bread, butter and tea.

Oct 26th—7 a. m., porridge and milk, egg, bread and ter; 12:30 p. m., meat and potatoes, rice and tea; 5:30 p. m., bread, milk and tea.

Oct. 27th—7 a. m., rice and milk; 12:30 p. m., potatoes, bread and soup; 5:30 p. m., omelet, fish, bread and butter. and tea.

Oct. 28th—7 a. m., porridge and milk, bread, butter and tea; 12:30 p. m., potatoes and meat, beef tea and bread; 5 p. m., corn starch, bread, butter and tea.

Oct. 29th—7 a m., porridge and milk, bread, butter and tea; 12:30 p. m., potatoes and meat, beef tea, bread and tea; 5:45 p. m., bread and butter, apple sauce and tea.

Oct. 30th—7 a. m., porridge and milk, egg, bread and butter and tea; 12:30 p. m., potatoes and meat, bread and beef tea; 5:30 p. m., milk.

Oct. 31st—10 a. m., peptonized milk; 2 p. m., milk and lime water; 5 p. m., do.; 7 p. m., do.; 11 p. m., do.

DATE.			RESPI-	DATE.			RESPI-
			RATION.		HOUR.		RATION.
Oct. 9th.	5:30 p.m.	107	20		8:45 p.m.		28
	8:30 a.m.		18	16th.	7:00 a.m.		
10th.	2:00 p.m.	101	25	16th.	1:45 p.m.	92	
10th.	6:00 p.m.	105	26	16th.	7:15 p.m.		
	8:30 a.m.		26	17th.	7:00 a.m.	88	
11th.	2:00 p.m.	95	24	17th.	9:20 p.m.	96	
11th.	4:00 p.m.	90	28	18th.	7:00 a.m.	82	28
11th.	8:45 p.m.	94	23	18th.	2:00 p.m.	94	30
12th.	8:15 a.m.	92	28	18th.	6:30 p.m.	94	
12th.	2:00 p.m.	94	25		7:30 a.m.		
12th.	4:00 p.m.	95	31	19th.	1:30 p.m.	90	
12th.	6:20 p.m.	109	30	19th.	6:00 p.m.	90	
13th.	7:30 a.m.	94	26	20th.	7:00-a.m.	96	
13th.	2:30 p.m.	94	29	20th.	7:30 p.m.		
13th.	8:00 p.m.	111	80	21st.	7:00 a.m.	84	
14th.	8:15 a.m.	96	30	21st.	1:30 p.m.	95	
14th.	7:00 p.m.	100	27	21st.	8:00 p.m.	98	36
	7:00 a.m.		31	22d	7:30 a.m.	100	40

	DATE. 1890. HOUL	R. PULSE.	RESPI- RATION.	DATE. 1890.	HOUR.	PULSE.	RESPI- RATION
	Oct. 22d 2:00 p	o.m. 96	26	Nov.14th.	6:10 p.m.	90	25
	22d 6:00 p		28	15th.	7:30 a.m.	90	26
	23d 7:00 a		32		2:00 p.m.	93	25
	23d 2:00 p		30		6:10 p.m.	96	26
	23d 6:15 p		36		7:30 a.m.	86	26
	24th. 7:30 a		32		2:00 p.m.	88	27
9	24th. 6:00 p		28		6:30 p.m.	93	26
	25th. 7:30 a 26th. 7:30 a		$\frac{34}{32}$	17th.	7:30 a.m. 2:60 p.m.	90 86	28 27
	26th. 2:00 p		26		2:00 p.m. 6:00 p.m.	91	25
	26th. 6:45 p		29		7:30 a.m.	80	26
	27th. 7:30 a		36	18th.		78	25
	27th. 6:30 p		36		6:30 p.m.	82	24
	28th. 7:30 a		32		7:30 a.m.	90	28
	28th. 2:00 p		28		2:00 p.m.	88	25
	28th. 6:15 p		38		6:00 p.m.	96	27
	29th. 7:30 a		32		7:30 a.m.	89	26
	29th. 2:00 p		28	20th.	2:00 p.m.	88	24
	29th. 7:40 p	m. 103	34		6:30 p.m.	93	27
	30th. 7:30 a	.in. 98	36		7:20 a.m.	87	24
	30th. 8:00 p	.m. 92	30		2:00 p.m.	83	25
	31st . 7:00 a		28	21st.	6:00 p.m.	90	26
	31st. 2:00 p		27	22d	10:45 a.m.	78	23
	31st. 6:40 p Nov. 1st. 7:00 a		30 32		6:30 p.m.	78	25 27
			32		9:15 a.m.	76 80	24
	1st. 6:15 p. 2d 7:00 a	.m. 100	34	24th	7:30 a.m. 2:00 p.m.	83	25
	2d. 6:45 p		34	24th	7:00 p.m.	89	26
	3d. 7:20 a		30	25th	7:35 a.m.	88	26
	3d 6:45 p.		28		2:00 p.m.	90	26
	4th. 7:30 a	.m. 104°	28		6:10 p.m.	86	29
	4th. 2:00 p		30		7:30 a.m.	86	28
	4th. 6:45 p		30		12:00 m.	78	27
	5th. 7:15 a		30	26th.	6:10 p.m.	89	29
	5th. 6:00 p	.m. 98	34		7:35 a.m.	84	26
	6th. 7:00 a	.m. 96	30		2:00 p.m.	87	27
	6th. 6:00 p		30		7:30 pm.	86	27
	7th. 7:00 a		30		7:30 a.m.	89	28
	7th. 1:00 p	.m. 98	24		2:00 p.m.	81	25
	8th. 7:30 a. 8th. 2:00 p	.m. 96 .m. 86	28 24	28th.	6:00 p.m.	87	26 27
	8th 7:00 p	.m. 85	28	29th.	7:30 a.m. 8:00 p.m.	83	26
	8th. 7:00 p 9th. 7:30 a	.m. 93	28		7:30 a.m.	$\frac{104}{93}$	28
	9th. 2:00 p.	.m. 99	31		2:00 p.m.	97	27
	9th. 7:00 p.	.m. 90	32		6:00 p.m.	98	28
	10th. 7:30 a.	.m. 81	22		7:30 a.m.	88	26
	10th. 2:00 p.		28		2:00 p.m.	90	28
	10th. 7:00 p.		27		6:00 p.m.	98	29
	11th. 7:30 a.	.m. 80	25	Dec. 1st.	7:30 a.m.	90	27
	11th. 2:00 p.	.m. 89	26	1st.	2:00 p.m.	97	28
	11th. 6:40 p.	m. 94	25	1st.	6:30 p.m.	100	29
	12th. 7:30 a.		28		7:30 a.m.	93	24
	12th. 2:00 p.		27	2d	2:00 p.m.	93	24
	12th. 7:30 p.	.m. 90	28	2d	7:00 p.m.	86	25
	13th. 7:30 a.	.m. 84	27		7:30 a.m.	85	26
	13th. 2:00 p. 13th. 6:00 p.	.m. 85	24		2:00 p.m.	93	24
	14th. 7:30 a.	.m. 96 .m. 85	26		6:30 p.m.	87	25
	14th. 2:00 p.	.m. 95	25 26	4th.	7:35 a.m.	83	$\frac{26}{27}$
	2211 г. 50 р.		20	æun.	2:00 p.m.	89	21

DATE.			RESPI-	DATE.				RESPI-
1890. Dec. 4th. 7	HOUR.		RATION.	1890.	HOU	UR.	PUISE	RATION.
Dec. 4th.	7:00 p.m. 7:35 a.m.	50	28	Dec 22d	7:30 a		90	24
		93	28	22d	2:00 1	p.m.	87	2.5
	7:00 p.m.	90	26	22d	7:30	).III.	96	26
Oth. 7	7:30 a.m.	94	25	23d	7:30 8	1.111.	85	24
	2:00 p.m.	92		23d	2:00 1	n.m.	90	26
	:30 p.m.	96		23d.	6:00 i	).m.	1():}	28
	7:30 a.m.	85	26		7:30 8		80	24
	2:00 p.m.	90	28	24th.	7:30 1	).111.	90	25
	:15 p.m.	101	25		7:00 8		78	2:3
	7:30 a.m.	80	24	25th.	2:00 F	o.m.	80	25
	2:00 p.m.	87	28	25th.	6:00 j	p.m.	103	28
	7:30 p.m.	104	29		7:30 8		78	23
	7:30 a.m.	78			2:00 ]		87	24
	2:00 p.m.	86	25	27th.	7:30 8	t.m.	8.4	23
	3:00 p.m.	103	28	27th.	2:00 ]	o.m.	90	24
	7:20 a.m.	86	25	27th.	6:00 j	o.m.	9.5	26
10th. 2	2:00 p.m.	89	26		7:35 8		78	2.2
10th. 7	:20 p.m.	100	27		2:00 1		86	
lith.	:30 a.m.	88 90	26		6:30 j		96	25
	2:00 p.m.				7:30		80	23
	6:00 p.m.	160	26		7:00		90	28
	7:30 a.m.	78	24		7:30		80	23
12th. 2	2:00 p.m.	93	25		2:00		86	24
	7:00 p.m.	97	28		7:00	p.m.	90	26
	7:30 a.m.	80	24		7:30	a.m.	83	23
	7:30 a.m.	77	24	31st.	7:30 j	p.m.	85	24
14th. 2	2:00 p.m.	93	26	7004				
14th. 7	7:00 p.m.	101	25	1891.	m. 00			
	7:30 a.m.	78	24	Jan. 1st.			90	26
	2:00 p.m.	95	26		5:45 ]		94	27
	7:30 a.m.	80		2d	7:30 8		79	23
	12:00 m.	90	25		7:00 ]		84	2.5
	7:00 p.m.	100	27		8:45		95	21
	7:30 a.m.	83	25		6:15		93	20
	2:00 p.m.	93	27		7:45		81	25
	3:50 p.m.	107	28		6:20		76	25
18th.	7:30 a.m.	78	24		8:00		94	23
	2:00 p.m.	96	27		6:15		96	25
18th. 7	7:30 p.m	97	26		7:00		80	22
	7:30 a.m.	76	24		5:30		80	23
	2:00 p.m.	90	25		8:30		94	24
	7:30 p.m.	104	29		8:30		84	19
	7:30 a.m.	80	24		6:10		94	27
	2:00 p.m.	90	25		7:30		76	
	7:00 p.m.	106			6:10		80	28
21st , 7	7:30 a.m.	86	25	10th.	6:45	a.m.	84	28

### ON THE ABUSE OF HYPNOTICS.*

BY JOHN B. CHAPIN, M. D. Pennsylvania Hospital for the Insane, Philadelphia, Pa,

Within a comparatively short time a number of patients have been received into the Pennsylvania Hospital for the Insane with a history of nervous exhaustion and physical impairment, followed by mental disorder, symptoms of incipient melancholia or mania. The history of these cases presented nothing unusual or out of the ordinary course of experience, but they were complicated with such anomalous and unusual symptoms as to suggest a suspicion that a form of disease perhaps heretofore unrecognized had appeared. Indeed a strong temptation existed with the aid of a classical distionary, to overload still further our already congested nomenclature of insanity and neurology.

For the purpose of relieving the insomnious condition that is such a frequent accompaniment of the incipient stages of mental disorder, it was ascertained as a part of the medical history that in these cases hypnotics in large and repeated doses had been administered. To such a degree had this practice been carried that a pathological state was added or superinduced that seemed clearly to result from medicines prescribed to produce sleep. The number of cases of this character on my list makes a group of eighteen. Cases of opium or the alcohol habit are not included—all of the patients having been properly certified to be insane. It is not proposed to present full notes of all of these cases, but only to notice the salient characteristics of a few. In these cases it was evident that the active and threatening symptoms, the delirium and partial paralysis of functions of certain centres which we will notice, had been induced by the character of the hypnotics prescribed. It becomes important in our practice in a suspected case of this sort, for its proper treatment as to preserve human life, to be able if possible to differentiate between mental disease proceeding according to its usual course of development, and those cases of mental disorder resulting wholly

^{*}Read before the Association of Medical Superintendents of American Institutions for the Insane at Washington, May, 1891.

from, or superinduced and complicated by, the toxic arency of large doses of hypnotic drugs. The importance of a particular inquiry as to the previous treatment in any case where a sysplcion of hypnotic drug poisoning exists, is, we think, clearly shown by the cases we now cite:

Case 1 .- General health impaired by child bearing. No heredity. Four weeks before admission went to the seashore with nervous prostration. Became hysterical, restless, insomnious and finally noisy and maniaeal. Was obscene, profane, complaining and disposed to throw herself about. Two weeks before admission showed suicidal tendencies. Had been treated with large and repeated doses of chloral and parallehyde. During last four days kept under the influence of ether. The breath had au ether odor at admission. There was confusion of ideas; the pupils were dilated: the tongue covered with a white pasty coat; eves bright; pulse 100 and feeble. During the progress of the case patient showed active hallucinatory disturbances, involving senses of sight, smell, hearing and taste; said that milk which was offered to her was blood; asserted that persons had heads on them belonging to others; fancied she saw her intestines hanging from nails on the walls of her room, her children mutilated before her eves, heard their cries, and made offorts to rescue them. On admission the narcotics previously used were discontinued, and patient made a good recovery under byoscine and liberal food. Was discharged nine months after admission, recovered.

Case 2.—Female, aged 28, mother of three children. Naturally emotional and refined. Had been much interested in her husband's work and assisted him beyond her strength. Had not fully recovered her strength after her last confinement. Two months before admission seemed run down, weak, sleepless, depressed. This condition increased until a mild attack of melancholia was developed with delusions of introspection. Was placed under the influence of chloral and bromide of potassium, Took 180 grains of chloral daily for six weeks, with directions that the doses should be administered more frequently if the excitment increased. On admission the physical condition was feeble; the pulse was accelerated and the action of the heart irregular. There were active hallucinations of sight, hearing, taste and feeling. She articulated with difficulty; there was partial par-

alysis of the tongue, incoördination of muscles of tongue and limbs and sighing respiration. The character of the hallucinations and delusions was such as to create fear and apprehension. The previous treatment was discontinued and the patient made a good recovery with the liberal administration of food, and sulfonal. Was under treatment four weeks.

Clase 3.—Female, said to have suffered from chronic nervous disorders and insomnia, supposed to have been occasioned by an alcohol habit. Had neuralgia and said to have been threatened with insanity for which she was treated with liberal doses of chloral, bromide of potassium and hyoscine. Fortunately had taken a liberal amount of food before admission, which she did not refuse. On admission was in a stuporous, feeble condition: unconscious; in a state of sub-acute delirium; unable to articulate; and had partial hemaplegia of right side. Pulse 140; tongue enlarged and covered with dark pasty coat. skin had a dusky livid appearance. The hypnotics previously administered were discontinued and the patient was given nourishment liberally. Three days after admission was able to articulate indistinctly. The patient during convalescence seemed to have an impression of having passed through some terrible ordeal, was unconscious of her surroundings and had apprehensions of some impending trouble of a vague character. Made a rapid and quick recovery in three weeks without any medical treatment except an occasional laxative and plenty of food.

Case 4.—Female of intelligence and refinement. Has a neurotic heredity. Never physically strong, but has had fair health until two years ago, when she became depressed: had gloomy forebodings and desired to be alone. Four months prior to admission the above symptoms becane greatly aggravated. Had delusions and was in a state of active melancholia. Made her escape from her care-takers, wandered about alone for forty-eight hours and was found in a feeble exhausted condition. Continuing to grow worse was brought to the hospital. On her admission was observed to be in a state of great agitation, walked the floor, rubbed her hands, threw her body from side to side, moaned, saw dreadful things on the wall of her room, said her eyes were to be burned out and something terrible done to her. Said that she must go to the bottom of the sea and then to the planets, then burned forever with liquid fire in a place

somewhere between the sea and the firmament. Saw dreadful looking heads upon plants and trees; objected to taking food as it looked like blood. It is a part of the medical history of this case that the patient had taken about one ounce of paraldehyde daily for a period of six weeks before admission, and at the time of her reception a strong ether odor of paraldehyde was distinctly perceptible and was observed three weeks after admission. The patient has now been in the hospital eight months, during three months of which period it may be said she had active hallucinations affecting several of the senses. The active hallucinations then ceased and in all respects there was a decided improvement, but for five months past there has been a recollection of the terrible hallucinations which seemed firmly fixed. This patient now seems in all respects well except there remains an unwillingness to return home under an apprehension that the former mental disturbance will again become active.

CASE 5.—Male, aged 33, was admitted to the hospital with a history of recently having had typhoid fever during which he was mildly delirious. During the last three weeks of the fever for some reason he was given large and frequently repeated doses of whiskey. He had also morphia and one of the bromides.

The bromide was administered for two or three hours in ten to twenty grain doses. The amount of morphia given was not ascertained. A few days before admission the patient became violent, had hallucinations, was suspicious and at times apprehensive. When admitted he was in a feeble condition. His tongue was brown and dry, pulse feeble and rapid, skin dry, temperature 99. He had hallucinations of all senses, was suspicious and controlled by delusions. He heard his wife's voice and saw her talking in the grounds outside his window. Whiskey and other narcotics were discontinued on admission. He had liquid diet with iron and strychnia, and for a few nights hyoscine hydrobrom., gr.  $\frac{1}{120}$ . The patient rapidly improved and in two weeks was out on the lawn, and in a week longer appreciated the delusional nature of his ideas. He had some headache and sensation of fullness, for which a pill of ergotine and nux vomica was prescribed with marked benefit.

Case 6.—Male. Admitted to the hospital with a history of mental disturbances extending over five weeks, preceded by an attack of articular rheumatism which was of but short duration,

subsiding on the appearance of mental symptoms. For his rheumatic symptoms salicylates and potassium iodide had been prescribed, and for a hypnotic chloral, grs. 15 to 20. This dose was repeated at least once every night and not infrequently twice. For two weeks before admission he also had morphia by hypodermic injection morning and night, commencing with a quarter of a grain, gradually increased to a grain at each injection. Early in the history of mental disturbance he had also bromide of potassium in 30 grain doses, frequently repeated. On admission he was in a state of mental confusion. He had hallucinations of sight and hearing. He was wandering and incoherent in speech; skin dry; pulse 96; tongue heavily coated. He was given at bed time hyoscine gr. 120, which was repeated at 2:30 A.M. without effect, as he was awake and talkative all night. On the second day of his residence in the hospital a tonic was prescribed, containing iron and strychnia, and that night nothing was administered as a hypnotic but whiskey, drams 6. He slept after 1 A. M., and was quieter on the day following. The whiskey was repeated and the patient slept nearly the entire night. In a week he was sleeping well, was quiet, and his hallucinations have nearly disappeared. The whiskey was then discontinued. In a week longer, two weeks after admission, he was so well that he was taken home, the tonic medicine being continued. The patient has visited the hospital since and appears entirely restored.

CASE 7.—Male. Brought to the hospital strapped to a bed in a condition of acute maniacal fury. For two weeks he had been treated for typhoid fever. He had been delirious and his head back of the neck and bottoms of his feet had been freely blistered. The blistered surfaces were quite fresh at the time of his admission. He had been given brom. of potass. grs. 15 every three hours, chloral grs. 15 night and morning, and had occasional hypodermic injections of morphia. He slept the greater portion of the night and in the morning was quiet and suspicious and apparently apprehensive. He was very reticent, did not express any delusions, though evidently entertaining some. His bowels were constipated, tongue coated, breath offensive. There was no abdominal tenderness nor any abnormal temperature. Patient in a few days talked more freely, said he had heard voices and seen people about him and that he feared

he was to be punished. He took his food frequently and slept sufficiently without hypnotic drugs. Iron, quinine and strychnia were administered, and as soon as the condition of his toot purmitted, out of door exercise was taken. He remained depressed for several weeks, but the hallucinations rapidly disappeared and he was subsequently discharged well.

Cases might also be cited showing that similar ballucinatory disturbances may be produced by the excessive habitual use of chloral, bromides and opium.

The facts presented in the histories of these cases may soom sufficient to call attention to the possibility of dangerous complications from the use of, and abuse of, hypnotics. There was nothing in the early history of these cases thru might not bookserved and expected to occur in the usual experience of a hospital. As they progressed, however, hallneinations appeared, accompanied with resclessness, motor disturbances, four of impending calamity, and manifest constitutional disturbances. The sense disturbance was general and very active. It related to the food that was presented—the air of the room—the environments of the hospital-the clothing-the identity of persons-terrible sounds and voices-dreadful apprehensions, accompanied by struggles to escape and suicidal artempts. The hosptal treatment was further complicated by refusal to take food. Life was even seriously threatened in consequence of partial paralysis or impaired performance of functions of vital centres. Indeed we could not otherwise conclude than that a toxic delirium had been induced as an abled complication, which imperilled life and subsequently retarded recovery in certain cases.

In all the cases forming the group, hypnotics had been administered to produce sleep in frequent doses for long periods, and as it appeared in several instances, the doses had been enlarged as the delirium increased. The delusive ideas remained in several cases for a considerable time after the patient appeared otherwise to be well—the vivid recollection of frightful visions arousing a fear that they would return if sent home. One patient now under treatment, but whose case is not presented above, is suffering from mental hebetude, languor, suspension of mental activity, took 480 grains of brom, of potass, every twenty-four hours for one year. She now seems to be slowly recovering from the drug poisoning.

The physical symptoms in these cases have quite uniformly been noticed to be a dilated sluggish pupil, diminished mental reflexes, a feeble heart beat, a flabby tongue somewhat pale and covered with pasty coat, and a tumid abdomen. If a patient comes to the hospital with a history of mental disorder and in addition there is a complication of delirium and has had large doses of chloral, paraldehyde, opium or bromides as a part of the treatment, with the physical symptoms which are named, we are then disposed to suspect that part of the trouble may be due to the toxic effects of some drug. I have sometimes been surprised that intelligent physicians should be led into what seems an erroneous and hazardous line of practice. But we must bear in mind that there is now a tendency to treat the insane privately, and it has occurred that excessive doses of hypnotics are not infrequently administered to produce quiet and prevent disturbances and noise which would disturb a neighborhood or others in the same house.

In the treatment of the cases referred to in this paper the hypnotics that had been used so freely were discontinued and with the exception of three, two being still under treatment with a prospect of recovery, all were restored to health except one by means of nutritious food, quinine tonics and a few doses of digitalis when indicated. Improvement began when the poisonous hypnotic medicines were discontinued.

It is now some time since there has been any interchange of experience in the use of hypnotics in American hospitals. But from observation and inquiry, I am of the opinion that in the treatment of insanity, their use has been decidedly diminished, or discontinued, in recent years.

I have named some of the direct injurious effects of large doses of hypnotics upon the brain which are shown in the cases stated. Of the indirect effects we may know less, but the serious question must arise whether damage to the brain of a permanent injury may not be done by their excessive use; and the tedious convalescence, mental hebetude and enfeeblement which often follows the acute outbreak, may not in part be accounted for as a result of the toxic effects and disturbed brain nutrition from prolonged and injudicious use of hypnotic drugs.

### THE MECHANISM OF INSANITY.

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# III.—PATHOLOGICAL FATIGUE OR NEURASTHENIA, (Continued.)

## 2. MENTAL ELEMENTS IN NORMAL AND PATHOLOGICAL FATIGUE.

It is next in order to make a practical application of general truths more precisely to the nervous and mental mechanisms, and their special disorders in neurasthenia. This leads to my second proposition, that to properly study our problem we must take into account the nature and manner of production of the mental symptoms common to nervous exhaustion and insanity. This brings out the main purpose of this study of the fions between mind and body:—to show how it is that the mental symptoms furnish already index of the fatigue and auto-intoxication of nerve and muscle tissues, as a guide for diagnosis, prophylaxis, and treatment; and also to show how the general symptoms of nervous exhaustion can be better understood by a proper interpretation of the mental symptoms. The acute, acquired form of neurasthenia will therefore be first considered with reference to the mental symptoms, to show what they are, and how they are produced.

All observers agree that the symptoms of neurasthenia are largely subjective. There are objective signs, but the physician mainly depends upon the patient himself to tell how he feels. Every physician also learns to qualify such statements according to his estimate of the individual and his mental state, under the bias of the characteristic "hopelessness" and "worry," or even of the less intense "depression of feeling." These symptoms pertain to the state of the feelings, and constitute the emotional tone, in its intimate dependence upon bodily states which afford a general sense of comfort or discomfort,—of well-being or ill-being, more or less persistent. This is quite independent of the intellect, and the passing feelings which are normally attendant upon pleasing or painful ideas. These disorders of the feelings and the emotional state constitute one distinct group of mental symptoms.

All the writers on this subject have also given prominence to the striking clinical manifestations of "inability to concentrate the mind,"—the weakening of the power of attention. Here is another important group of symptoms that represent disorders of the intellectual activities and the voluntary power. The most prominent of these, as a sensitive index of nervous fatigue and exhaustion, is the attention.

## THE PRIMARY DATA OF MENTAL ACTIVITY,-Two GROUPS.

All these mental activities have to deal with sensations as furnishing the primary data of their operations. In the foregoing study of the mental mechanism it has been shown that there are two groups also of these sensations:—the first are the general organic sensations, not intense enough ordinarily to pass over the threshold of consciousness, but they constitute the vast subconscious inflow of minor sensations through all the sensory channels that lead to the sensorium from every tissue and organ, and from every peripheral mechanism, nervous or muscular, in the body; the second are those we are conscious of as presented through the special senses and that stand in the mind as perceptions, ideas and memories;—these are the data of consciousness.

## (1). ORGANIC SENSATIONS AND THE EMOTIONAL TONE.

The organic sensations in the subconscious mechanism, demand first consideration as best revealing something of the mystery in the relations between mind and body, and the genesis of the mental symptoms in neurasthenia. These relations were studied in the first chapter and illustrated diagramatically by Fig. 3, representing the nervous and mental mechanism. The organic sensations, proceeding from all states of the body, are in some degree and form represented in the sensorium; and it was held that they constitute the sense of body,—the sense of personality.* The line cannot be strictly drawn between the conscious and the subconscious activities, as to these organic sensations. Many of the sensations received through the special senses and giving knowledge of the outer world, enter a passive consciousness, as the ticking of a clock that is not consciously perceived unless it stops, or attention is turned to it. There are still weaker sensations, coming through the special senses, of which we are not conscious. In like manner, but in reverse order, the great mass of the organic sensations are normally unperceived, but some of them

^{*}Ribot. The Diseases of Personality, trans, Chicago, 1891.

may be intensified enough, as by some disorder, to enter the field of consciousness. Those arising from the trophic, and minor inhibitory mechanisms, are among the most subtle and unfelt, as are those from vaso-motor changes in the general and local circulation which are most important in their influence upon mental states. But even among these, the inner tingling sensations, followed by general chilliness and external pallor upon a sudden idea of great danger, are probably due to the swift vaso-motor constriction. There are also the normally unperceived, though incessantly repeated sensations which provoke and accompany the respiratory movements. They may arise also from the state of the muscles after exercise, even when inactive, giving the feeling of fatigue and exhaustion; or in an opposite condition may afford a general sense of vigor. The muscular sense is a stronger representation of the organic sensations that are sometimes classed with the special senses. Hunger and thirst are not localized sensations, but result from a discomfort of the whole organism, being connected with the state of nutrition*.

Sense of Well-being.—These normally latent or obscure sensations, low in intensity but great in volume, are persistently flowing inward beneath the fewer but relatively more intense and transient sensations from the special senses. In the healthy organism, refreshed and vigorous, there is an equilibrium of physical sensations, or a multitude of agreeable feelings attendant upon the exercise of normal power.

This physical state produces a mental sense of well-being; the persistence of this will give its special character to the physical and mental habitude, or the personality of the individual.

Sense of Ill-being.—But in the conditions represented by a sense of ill-being, there are feelings of fatigue, depression, anxiety, languar, absence of desires, a sense of lack of power, of self-depreciation, and of personal unworthiness, etc., of which the patient gives account. Beard has well characterized this "as an instinctive consciousness of inadequacy for the task set before us." "We are hopeless," he says, "because our nerve force is so reduced";—"a certain amount of nerve strength is necessary to supply the courage requisite for simple existence." The persistency of these feelings is marked by a visible change of personality. In slighter degrees

^{*}Bain, "The Senses and the Intellect," 3d Ed., 1888, Part II.

these changes are like those commonly seen in the evening tire of an active man, from which restoration follows. . When, however, in the processes of waste and repair, the balance turns slowly and insidiously to the side of weakness of nervous tissues, whose corresponding mental activities show these symptoms of disability, they stand as evidences of a neurasthenic condition. As these morbid physical states persist, the ideas suggested by the morbid feelings, and to account for them, are framed by degrees into some wrong conception. Although there are, however, many cases of melancholia without delusions, yet beliefs may be engendered consistent with the morbid state of hopelessness, self-reproach, and worry. In many cases special delusions are formed for which the patient gives reasons, with a degree of intellectual integrity that is peculiar to melancholia. These allied organic and consequent mental changes profoundly modify the personality in its inmost nature. By the process described this is not the violent and superficial effect of sudden emotions, but results from a slow and subtle process that irresistibly changes the basis of the personality. It is easy to see how such morbid organic sensations may be engendered in a general neurasthenia and produce such a train of nervous symptoms, characterized by a sense of ill-being, depression and hopelessness. Like results may come from nervous exhaustion initiated in the brain itself, by mental overwork, care and anxiety. Here is the bond between well-being and ill-being of body and the emotional tone. It is plain how the changing states of mental feeling reflect the bodily states in alterations of the sense of personality.

Mental Symptoms of Auto-Intoxication.—The new evidence in regard to the toxic elements engendered in the body sustains these views, and seems to offer the long sought explanation of many obscure conditions. Full force should be given to the fact that in all forms of functional activity the fatigue proper, from the discharge of energy and the breaking down of material cell contents, has always joined with it the toxic influence of self-produced waste products. We are able to account for much that appears confusing in the symptoms of fatigue, by ascribing their variations to differences in the kind and quantity of the specific poisons that are developed in the various tissues. For example, while melancholia is generally characterized by a disposition to quietude and shrinking into seclusion,

some cases are marked by great mental agitation and physical restlessness, and inattention to surroundings, the essential physical and mental condition being the same. A fair inference is that there is an irritating intoxication in such cases. But again there is the peculiar condition of apparent stupor added to the ordinary melancholia, so that in extreme cases the patient cannot move his limbs or utter a word, and the facial expression is blank. presents a more profound degree of the condition described by Brunton as like the poisoning by curare of the muscular mechanism. The absence of true psychic stupor in many such cases is well proven. It has been seen that these symptoms may be produced by choline, neurine, and muscarine, which are antagonistic to atropine. It Hare's suggestion that it is possible to give relief by antagonistic remedies when there are signs of auto-poisoning, he mentions dilated pupils, a hot and dry skin, dim eyesight, rapid pulse, as like the effects of atropine. Symptoms resembling them in lesser degree are seen in both neurasthenia and melancholia. Again a slow and full pulse with high arterial tension, and a throbbing frontal headache, suggests the ptomaine like digitalin. Some of these poisonous substances lower the temperature; it is often sub normal in the graver neurasthenic conditions. the basis of such causes, and such a method of production, the "excessive irritability and weakness" of neurasthenia seem amply accounted for. By means of local perversions, the weaker organic sensations sometimes come to be felt, and may be so intensified as to bring them into the group of those that are consciously perceived and localized. Langour, dullness, stupor and lethargy are like manifestations of toxic influences. These altered sensations will be hereafter described. They are of great psychological importance. Reference has already been made to the relation of uric acid to diseases of the nervous system, and the characteristic symptoms of lassitude, depression of spirits, etc. Its formation, elimination, and possible excess in the blood, are so essentially connected with the processes of waste and repair as to make these symptoms most significant in their relation to neurasthenia.

The conditions of mental feeling, marked by the emotional tone, as states of well- or ill-being, have now been shown to be intimately bound up with the great volume of subconscious bodily feelings, and representative of their predominating quality. They are normally so low in intensity as to be undiscriminated; but when intensified by morbid conditions they become symptoms of

the existing disorder.

(2). Sensations From the Special Senses; Perceptions, Ideas, etc., and Disorders of Intellect and Will.

It now remains to study the other groups of symptoms representing disorders of the intellect and volition as distinguished from mental or physical feeling. Of these disorders, the most important indications pertain to the attention. All writers on neurasthenia have noted the fact that the mental symptoms of the higher order are always prominent. But what is wanted is a sufficient analysis of them to show their two-fold significance. A brief explanation should make this clear and easy to understand, as it is necessary to be known. On the one hand the disorder may begin below in the sources of organic sensations, and extend upward into the higher mental sphere. The great mass of sensations beneath are summed up into our sense of physical personality. Compared with them, all that comes into our conscious minds through the special senses, with the succeeding perceptions, ideas, memories, judgments, feelings and volitions, in the "circuit of consciousness," represent but small items. The sequence of these activities in the mental mechanism is shown in the diagram, Fig. 3. In acute neurasthenia, and true melancholia and mania, there is always nutritional, toxic, and functional weakness, fundamentally, in the organism; it is from this that the influences arise which affect our conscious feeling and thinking, making these higher mental states the sensitive indices of the lower physical changes. For like reasons these subconscious changes of personality, pervading and voluminous, have a predominating influence. all goes well with the organism, and it is in a condition of unfelt equilibrium, the processes of thinking and feeling are adjusted, more or less logically, to the varying environment, upon a basis of a sense of well-being and normal love of life. On the other hand, a morbid process may be started in these higher activities, in a previously healthy and strong organism; but until the organism itself suffers a change to the specified nutritional and functional weakness, there can be no such mental symptoms as are being studied here. Normal mental activities cannot produce "mental symptoms" except by first causing the characteristic "weakness" somewhere in the physical basis of them all.

Familiar Facts of Mental Manifestations. Consciousness.—There is no need, in this matter, of entering into psychological

speculation. The characterization of the mental activities in the foregoing chapters were intended to show that, for the present purpose, it is only necessary to consider the final facts of the manifestations of mind with which we are most familiar. We commonly note the fact of consciousness and distinguish between such states as its absence in coma, its partial presence in sleep, or its full activity in an alert and intelligent mind when we cannot doubt that some activity of organic elements is added which was not present in the less active states,—as of coma, for example. We use many phrases to describe different degrees of this activity, meaning always a state of consciousness, the sum total of all its activities.

The Attention.—A brief statement may be made, for its application here, of what has already been said of the attention. The term is applied to denote the mental action when a particular object of thought is held in mind to the exclusion of others. Active consciousness is always attending to some one presentation in its field,this action is attention, and this activity is always going on in connection with every other mental action, or object of thought. The mind may attend to the presented perception of a new sensation,—a re-representation in memory,—an abstract conception,—or the idea of a muscular movement. The larger importance of the attention is due to the fact that in it resides the inhibitory power over all mental operations. The attention is to these what the physiological principle of inhibition is to the lower nervous mechanisms. It is the abatement of this higher inhibitory power and of its regulating and guiding control that appears early and most constantly in mental fatigue and weakness. This is manifested by changes in the power of attention.

Ribot's* simple analysis of the office of the attention is very clear. It acts in two forms:—voluntary attention is its acquired form gained as a result of the higher evolution of man;—spontaneous attention is its natural or primary form, when its action is attracted or reflex, as is so manifest in children and animals.

Spontaneous Attention.—Spontaneous attention being first considered, the essential fact is that it is always attracted to the object or idea in the mind that most interests it, or keeps it on the alert. This idea may be intensified

^{*} The Psychology of the Attention, trans,, Chicago, 1890.

in interest by pleasurable or painful feeling,-by a desire or a fear. Now it has been shown that when the emotional tone represents physical well-being or ill-being ideas harmonious with the emotional tone will be intensified. It has been shown also that in states of ill-being and depression of feeling the attention is persistently attracted by painful ideas which become further intensified by the prevailing emotional tone. Thus a state of habitual mental pain shows attention attracted by, and dwelling upon, painful ideas. This is the basis of worry, and it is thus shown how worry intensifies its own cause. The clinical significance of worry, therefore, is that the weakened attention is being occupied by painful ideas which are intensified by the exaggerated influence of a painful emotional tone representing a weakened and irritated physical basis. The painful ideas are further intensified by the concentration upon them of the attracted attention. When only attracted attention is in action, as in extreme conditions, the spontaneous flow of ideas goes through the mind in a wandering train, as in dreaming or delirium, without check or guidance; and those ideas in the train most attract the attention which are then in harmony with the emotional tone.

Voluntary Attention.—The exact antithesis of the spoutaneous form is voluntary attention. As to this, the essential fact is, that it is the activity of inhibition. The attention directed and concentrated upon a chosen object of thought is act of volition. A man controls his own mind by willing his attention, as it were, to be fixed upon some one item or object, in the train of presented ideas, to the exclusion of others. He thinks about what he chooses to think about; he may make the most worthy object the most interesting; by dwelling upon its worthiness he intensifies it, thus resisting the attraction of less worthy interests and emotions. This directing of the attention by the will may control and guide the processes of thinking,-may inhibit the promptings of the emotions in conduct; and it does manifest itself in all voluntary action. Attention has always a motor element and expresses itself in muscular movement. In a healthy man, with a refreshed and vigorous organism, and a trained intelligence and attention, is found the most efficient expression of this higher power of inhibitory and guiding control. This is an acquired power, improved by training. Now may be plainly seen the importance of the clinical signs in regard

to the higher inhibition. Let there be weakening of nervous energy from any cause, then the weakening of the voluntary attention is a direct and immediate sign of mental and general tire or exhaustion. It may be that, in such a state, as much or more "control" is exercised, but it requires more effort and expenditure of nervous energy.

The more the higher control power is lessened, the more the spontaneous attention is left free to act. The gradual reduction of the control power of the voluntary attention is a matter of common clinical observation in normal fatigue, neurasthenia, melancholia, etc. Here then is further shown the bond that connects the changes in the physical basis of the personality and the changes in the higher mental sphere, in which the power of attention thus becomes a sensitive index of bodily conditions. The mental attitude at any given moment is 'determined by the state of the attention. This is always tending to act in a reflex and spontaneous manner according to the emotional tone, as attracted by the most interesting ideas. When bodily feeling is in equilibrium the voluntary direction is easiest; but direction is always inhibition,-by will and choice the ideas are held in view that stir the worthiest feelings, or a consenting will yields to those made interesting by desire. Then feelings as motives add intensification to the mental attitude, and again we find the potent influence of the emotional tone. It controls or is controlled. This brings out the practical point that is of present interest,—the need of the higher inhibitory control and what it works against. According to Foster, just as physiological inhibition plays its part in the lower mechanisms, so is it important in the whole work of the central nervous system. He says: "In all probability many of the phenomena of nervous life are the outcome of a contest between what we call inhibitory, and exciting or augmenting forces."

Another practical point is of the greatest importance here in regard to the higher inhibitory control, acting through voluntary attention. It is the application of the principles in the laws of practice, habit, and association. The mental activities do not escape the full force of these laws. When once a mental attitude has been determined by the inter-play of ideas, feelings, and controlling or consenting will, there is a functional disposition to repeat the organic and attendant psychical processes. "Habits of thought" are acquired, and they are characterized either by a

^{*} Op, cit., p. 918.

habit of yielding to impulsive emotion, or as determined by a controlling inhibition. The principle of practice is in like manner always ready to reinforce the power of voluntary attention. Hence we see that the attention, as the agent of the will, has to work against also the effects of practice and habit which tend to become fixed by states of feeling, the associations of which with ideas are also strengthened by habit; while at the same time, voluntary attention trained by practice leads to the highest acquirements of mental power. Conversely, we see the import of the lessening of inhibitory, selecting, and directing power in states of nervous fatigue and exhaustion. Whatever the physician may discover in the bodily condition of his neurasthenic patient, or whatever he may infer of its pathology, he should always remember the effects of habit in the mental activities. The nervous invalid may remain such, even under strongly recuperative tendencies, simply from mental habit, confirming it both by misuse and disuse of normal power. The patient, powerless to contend alone against the force of weakness and habit, must have a physician for both mind and body.

### MENTAL SYMPTOMS IN NORMAL FATIGUE.

The fatigue of the attention will vary in its manifestations in different degrees of nervous fatigue and exhaustion. Its predominating significance is also shown by its relation to mental symptoms, which may be sufficiently illustrated by a not uncommon experience. Suppose that after a day's professional labor you have spent a long evening at your desk. Your probable mental condition may then be as follows:-There is lessened mental activity. Voluntary attention is fatigued, and in spite of much effort you repeatedly find your spontaneous attention attracted along some train of ideas to a subject remote from the one you are trying to keep in mind. Sense-perception is less acute,—the attention shows fatigue by inattention to incoming sensations. There is less power of memory, -it is less retentive, because diminished attention to impressions renders them less vivid, -its recalling power is slower and weaker, -and in the underlying association of ideas there is a spontaneous flow which is controlled only by unusual effort of will,—the association process is itself slower, the vocabulary diminishes, and even familiar names and words may not be recalled. The logical processes work more

slowly in making comparisons and judgments, and in reasoning to conclusions,—the tired attention with effort holds on to one member of a proposition while another slips away. With growing torpor your attention may cease to be stimulated and you may fall asleen. There is a lowering of the emotional tone and a quietude of feeling with lessening of natural vivacity; there is a diminished sense of adequacy of power, and tasks seem difficult that after rest will appear easy enough. An abatement of power to control the motor mechanism is apparent as requiring more effort of attention. This is "normal fatigue; it will be seen that in every phase of these activities the attention shows the effects of fatigue in lessened control. Restoration follows when in the repose of rest and sleep, the circulation removes the acid waste products, etc., that caused the somnolence, while it supplies the materials for rebuilding the cell-contents so that they may again yield energy upon being stimulated.

### MENTAL SYMPTOMS IN PATHOLOGICAL FATIGUE, AND ITS GENESIS.

When the process of restoration is continuously incomplete, and after a time a similar degree of exhaustion is persistently established, the symptoms may not be quite the same in respect to the toxic influences. It is plain that there will have been going on an active process of removing them, though incompletely; and we have to conceive of a partial inanition and an irritating intoxication as contributing to the "excessive irritability" when it exists, as it commonly does, in neurasthenia. Then the normal fatigue has passed over into pathological fatigue. Recurring now, for example, to the picture of evening fatigue, after a day of hard work both physical and mental, a significant sequel might follow it. Suppose then you are suddenly called to a patient whose life is in danger. You are aroused. For many hours you may anxiously work over the case with no apparent lack of energy or failure of the resources of your experience and skill. But when relief comes, and you try to get rest in sleep, you only lie awake, restless, your mind excitedly reviewing the scenes you have passed through, your will powerless to inhibit the train of ideas, and you have a painful sense of nervous tension and irritability.

There would seem to be in this condition a ready explanation of acute exhaustion, or excessive fatigue and toxicity. This is the initial stage of pathological fatigue. Such an incident is instruct-

ive in many ways. It shows how the store of nervous energy is held in reserve, within the limits of normal fatigue under ordinary stimulation. But unwonted interest being aroused and attention stimulated, the mechanism responds with an increase of cerebral circulation, and large cortical areas are probably excited to action. While more nutrition is thus taken up, more energy is given out; and although there is a more rapid removal of waste products it is not complete, and these gradually accumulate until some degree of exhaustion is manifested. Then in the search for the power of control over mental processes, the attention failing in its office becomes conspicuous by its absence or lessened power.

The mental mechanism is commonly stimulated to action by the external circumstance, as in the incident just related. interest excited by the event arouses the attention which, acting in both its reflex and voluntary forms, intensifies all the mental activities. A like experience is still more common, in which there is absence of immediate objective interest, and the mental action proceeds more subjectively and from volition. Take another instance of evening fatigue, and suppose, for example, you have been delaying the writing of a medical paper which must be read to-morrow. With fatigue equal to that yielded to many times before, you approach the task to which a mixed interest is now added by your reflection upon the need of preparation and the consequences of failure to acquit yourself properly. With much effort of will and attention, you apply yourself to the beginning of the mental work. Presently the sense of fatigue and effort has passed away,—the subject itself gathers interest,—and you have a sense of satisfaction in the exercise of mental power. desist at last, not with consciousness of mental fatigue, but because the lateness of the hour claims your attention. But as in the other case, you may lie awake with an over stimulated brain and weakened inhibition; and this condition may represent simply a less degree of over-fatigue than in the former instance.

In the first of these two cases, external circumstance furnished the immediate stimulating interest;—in the latter case it is memory and expectation, but the attention is more clearly voluntary and the whole process subjective. In both cases the role of the attention is apparent. It becomes evident also that the feeling of fatigue does not measure it, but only represents the fact of fatigue within normal limits, beyond which there is a reserve of nervous energy that may be drawn upon by stimulating the nerv-

ous mechanism through an extra effort of voluntary attention. The explanation of the attendant physiological processes throws light upon the whole matter. Ribot* says it is highly probable and almost universally admitted, that attention, even when not directed toward any region of the body, is accompanied by a local hyperæmia of certain parts of the brain. This result of the greater functional activity is caused by a dilatation of the arteries, which itself is caused by the action of the vaso-motor nerves upon the muscular integuments of the arteries. But the vaso-motor branches of the great sympathetic are independent of the action of the will, and are not influenced directly by voluntary attention; they are however subjected to all the influences of the emotions. It is shown by the experiments of Mosso and others that the slightest and most transient emotion causes an afflux of blood to the brain. Maudsleyt says: "We may fairly conclude that the effect of attention to a current of thought is to quicken the circulation in the nervous sub-strata which minister to it; not otherwise than as when some earnest thought has taken hold of the mind, it keeps up an active circulation in the brain. and will not let us go to sleep."

These considerations enable us to distinguish the main elements of the mechanism that were involved in the last two cases of evening fatigue. In both, interest and emotion were the immediate excitants of the increased blood supply and brain activity;—in one, the emotion attended the thought of the external circumstance of a patient in danger, and attention was largely spontaneous,—in the other, the emotion accompanied the thought voluntarily chosen to be held in attention, although its interest was more remote. So the attention once becoming active, in whichever form, the same results then followed in either case, and the order was as follows:—attention, intensified ideas with mental feeling of interest or emotion, vaso-motor dilatation, quickened circulation and nutrition, increased expenditure of energy and waste products, and over-fatigue to the degree of exhaustion and irritability.

These phenomena of our commonest experience therefore bear this plain interpretation. It is fundamental in our nature, in the earlier stages of development, as in children and animals, that our inner physiological activities and their expression in conduct are

^{*}Op. cit., p. 19.

[†]Physiology of Mind, 3d ed., p. 316.

largely subject to the feelings,—our mechanisms are set in motion by untutored interests, emotions or blind instincts. But in the later development of the acquired forces of intellect and will, we control, select, and direct, through attention, the chosen, impelling interests, combined with much yielding and consenting to the primary forces of our emotional nature.

It is a common clinical observation, as has already been stated, in the section on the law of association, that with the beginning of failure of higher psychical control, the more mechanical laws of cerebration are brought more freely into play, and we come at last to the phenomena of weakening attention as the index of the more spontaneous flow of ideas along the paths of habit and association. Fatigue of the power of voluntary attention, which goes along with cerebral fatigue, is equivalent to the beginning of the failure of control.

In the mental conditions last described, the symptoms of a general and cerebral neurasthenia thus developed reveal the importance of the attention, and the high office of its voluntary power in respect to all mental activities. In the abatement of natural vigor in any of them, the physician should see signs suggestive of neurasthenia.

The Sense of Effort, and Discharge of Energy in Attention.— A further development of symptoms may follow if the patient continues in a neurasthenic state. While the action of spontaneous attention is always without a sense of effort, as in its passive exercise in revery which may be restful, it may on the other hand when concentrated, as in continued worrying, be accompanied by expenditure of energy and cerebral exhaustion. Hence the maxim that worry is worse than work. But voluntary attention is normally accompanied by a discharge of energy and a sense of effort. The feeling of effort is at a minimum when the body is strong, but with increasing fatigue the sense of voluntary effort grows greater because more is needed to accomplish the same result as before. This of course is attended by a conscious sense of mental inadequacy through a sense of resistance to effort, which, added to the feeling of physical inadequocy already existing and accompanied by painful emotion, increases the force of self-depreciation. There is deeper depression, more intense worry, increasing cerebral exhaustion, and lessening mental control by will and attention.

Correspondence of the Train of Mental and Physical Events in Neurasthenia.—The preceding analysis of these conditions shows what may be the train of concomitant and increasing disturbances of nutrition: there is local and then general inautition and irritating auto intoxication, -then vaso-motor constriction, perhaps from irritative elements in the blood, and local or general anemias, - or a vitiated blood supply that does not nourish, -or again a hyperæmia from which we may infer a constriction-paralysis, in a condition manifested by a temporarily increased activity, and mental facility which is still a manifestation of inhibitory weakness. Thus a process beginning in the general organism, perhaps with disorders of digestion, may lead by a sequence of events to such results as these. The causes continuing, or being renewed alter partial recovery, which may happen many times in a single case, the descent to graver degrees of exhaustion in melancholia may be accelerated by insomnia. This, we have to infer, is due to a hyperæsthesia from weakness and toxic irritation of the central mechanism.

The process may begin with an earlier event :- through necessity or mistaken zeal the individual over-exerts his brain in mental work under the spur of interest and forced attention. Here is indeed purely mental initiation of cerebral exhaustion which may start the train of events even in a strong man. Then with an over-worked brain, and under-worked respiration and muscular movements, as in sedentary habits, the cerebral waste of tissue is increased and the nutrition is diminished, by both local and general conditions. Such a special condition, for example, as the uric acid diathesis, may be engendered by deficient elimination. From a cerebral neurasthenia all the other events may follow. this form, however, there may be failure of special functions, as of memory, for example, in some of its elements. A not infrequent symptom is forgetfulness of names and words,—the fatigued word-memory centres are slow in recalling, or the word-uttering centres are slow in acting, and there are the symptoms of brain exhaustion with a hesitation of speech that is unduly alarming. The mental work of a physician or a lawyer is a good example of a peculiar strain of these central mechanisms. There is the daily continuous effort of listening to the details of medical cases, or to evidence and pleadings in some important cause, often followed by work at late hours. It is not strange that there should be a consequent condition of special fatigue of the attention and memory.

#### CEREBRAL NEURASTHENIA.

Cerebral neurasthenia being once established the general form is then usually developed; but the first may exist by itself, as has been shown, and be of long standing in a healthy organism. The same is probably true of spinal neurasthenia. This central affection is likely to involve, directly or indirectly, other co-ordinated mechanisms. An acute neurasthenia may be rapidly developed by mental shock or the like; it is as if, by a great discharge of energy, the brain cells are quickly brought to a state of exhaustion with inability to perform fully their function of taking up nutrition, or to act in their normal and habitual associations, because of being "thrown out of gear."

# SECONDARY, CHRONIC, AND HEREDITARY NEURASTHENIA.

The forms of neurasthenia so far discussed are those that are acquired, acute and primary. Secondary neurasthenia, or the form occurring after other definite diseases, often not nervous, must be regarded as belonging to the class having special toxic causes. The poisoning may be direct, and sometimes recurrent, as in the specific constitutional diseases, due to, or inducing, nutritional and degenerative disorders, such as gout, rheumatism, syphilis, etc. Or it may be indirectly due to such diseases as puerperal fever, typhoid fever, etc., in which it may be inferred that, although the specific toxic materials have passed away, a process of inanition once started persists, or continues to develop. Chronic neurasthenia has already been characterized, and includes conditions of partial recovery, in which a "constitutional predisposition" is fully acquired and established, This is consistent with periods of partial efficiency and comfort, with lessened reserve energy.

Hereditary neurasthenia, as a transmitted predisposition, is a usual cause of localized neurasthenia in special systems or organs. In these cases and in those with a general neuropathic condition, often inherited, there is a tendency to all forms and degrees of neurasthenic disorder, for the reason that, it being a condition of nervous instability and weak resistance, the organism yields to slighter degrees of stress than in ordinary states. The nervous equilibrium becoming unbalanced by slighter causes, the departure from the general habitude of the individual is less, and restoration to it easier, than when the normal resistance is great and the break down is a greater change. When a strong man breaks

down it may therefore be more difficult for him to get well than for one less robust and stable. When there is such a predisposition, however, the prophylaxis should be more diligent against neurasthenia and mental disorders. It should be remembered also that in these neuropathic cases one may inherit a strong brain and a weak body, and vice versa.

### SYMPTOMS OF NEURASTHENIA.

The bodily and mental elements in normal and pathological fatigue have now been considered as manifestations of normal activities of the organic mechanism that present the changes to be noted in neurasthenia; and such references have been made to the symptoms of "fatigue" as may aid in elucidating the nature of the elements involved. The manifestations of the elements of pathological fatigue may now be studied more comprehensively and precisely, with a view to their analysis and classification; this may lead to a definite and orderly specification of the bodily and mental signs of the morbid condition in neurasthenia, showing their relation to changes in the bodily mechanism, and laying the foundation for a better understanding of like manifestations in melancholia and mania as graver forms of nervous exhaustion.

The symptoms of neurasthenia, being manifestations of weakness of the nervous system, proceed from variations from the normal condition of nerve-cells—molecular and chemical, not yet demonstrably pathological, and implying a weakened or changed nutritional pawer. The vascular changes—the cerebral and spinal hyperæmias and anæmias—are due to disturbances of the inhibitory vaso-motor centres. As Dana says, "Neurasthenia is primarily cellular and secondarily vascular." Local anæmias may be initiated by an irritative blood-supply,—the vaso motor constriction starting the deficiency of nutrition in the nervous centres; and we may infer that this leads sometimes to hyperæmias.

The fundamental and initial condition being thus a weakness of nerve-cells from excessive waste and deficient repur, to which there is a toxic addition to the "fatigue," then two types of symptoms must be recognized,—those characterized by a too quick response to stimulation, due to "irritability" or hyperæsthesia, and those due to a slowing or annulment of functional power, manifested by "languor," or even a complete suspension of function. These conditions of abated power, with "irritatability" or

"languor," occur in different degrees, and are common to the sensory, central and motor parts of the mechanism; they often affect one part more than the others, according to the localization of the "fatigue," or the kind of toxicity. The symptoms of neurasthenia are mainly subjective.

The objective symptoms may be first considered, by noting the common physical conditions. There is a general appearance of abated vigor, bodily weariness, languor and mental depression, and loss of weight. There is not necessarily anæmia, but this is common in young persons and women; it is not present in many adults who may be physically well nourished or plethoric. There may be tremor of the hands, sometimes only following muscular effort or mental excitement. Uneasiness, restlessness and excessive irritability are also common.

Loss of vaso-motor tone is indicated by cold hands and feet, and the temperature is often sub-normal in the more exhausted cases. Morbid blushing is common in nervous exhaustion in both sexes, from slight mental or physical causes. A characteristic form of the blushing is that which occurs in patches upon the neck and cheeks, of a bright color and with well-marked borders slowly spreading. This may appear with only the effort and interest of an ordinary conversation. The disturbances of the circulation are marked by cardiac palpitations, and the phenomena of an "irritable heart." The pulse shows frequent and rapid variations in arterial tension; it may be reduced in frequency with increase of tension, or be more frequent and weaker, and often quickly accelerated by exertion or slight emotional excitement.

Dilatation of the pupils is a common symptom, and may be due to paralysis of the third nerve, or irritation of the sympathetic. These suggest nervous weakness, irritability and perhaps different toxic influences. A striking peculiarity is a quick and frequent alternation between this and contraction. The atonic voice is peculiarly significant,—it is faint and husky, and frequently varies in force. Sometimes it will suddenly change to a higher pitch and sound thin and weak. Respiration is not changed in frequency, but deficient respirátory expansion may be observed, with the symptoms of compensatory sighing and yawning.

The appetite is poor; there are disorders of gastric and intestinal digestion, gastric irritability with atonic dyspepsia, and constipation, sometimes alternating with nervous diarrhæa; and flatulence with feelings of distention; there is gastric neuras-

thenia, and a "torpid" or "neurasthenic" liver, and the important toxic consequences. Elimination generally is greatly at fault, by liver, kidneys and skin. The urine varies in specific gravity, being usually low in younger persons, with phosphates in excess. Older persons have more digestive and hepatic disorder, and a condensed urine with sometimes excess of phosphates, urates, and oxalates. Traces of albumen and casts are common in the depressed cases, as in melancholia. The peculiar symptoms of "uricacidæmia" are so common in neurasthenic conditions that a careful study of this toxic element is likely to be profitable.

Neurasthenic irritability of the bladder and urethra occurs in both sexes; and in women the lowered nervous tone is manifested in menstrual disorders. While amenorrhæa occurs, particularly in the graver cases, as in melancholia, etc., it is often physiologically conservative; there may be an increase of the flow, and even the ordinary amount, in anæmic conditions, becomes relatively a hemorrhage. Many such cases are kept indefinitely in a state of exhaustion by losing monthly all the upbuilding they can gain. Irregular menstruation and dysmenorrhea are also common. Women in general suffer more than men from sensory and irritative symptoms,—there is more pain, headache, and neuralgia, and the complications of hysteria occur. The diseases peculiar to women may be either the causes or effects of neurasthenia. The symptoms of sexual functional disorders, generally, should always be first studied carefully, as probably expressions of a general neurasthenia. This is true also of the disorders peculiar to adolescence and toe climacteric,—at the latter period of life men also are prone to neurasthenic troubles.

Insomnia has already been especially noticed as a symptom of irritability,—a cerebral over-excitation from local irritation, or that condition initiated by intensified interest and attention until the symptoms of "fatigue" supervene. Macfarlane defines insomnia as an evidence of vigilance in the cerebral cells, initiated and maintained by some perturbing element in the system, of which it may be the sole symptom.

The subjective symptoms are thus broadly characterized for convenience, as those of which the patient himself gives account. This division from the objective symptoms is open to criticism; the thesis of this discussion is, in part, to show that the inner conditions are largely revealed by mental symptoms which are obvious to the clinician who obeys Krafft-Ebing's injunction to pursue

an untiring observation of the psychical processes. While the patient may describe his feelings and tell his thoughts, in their subjective aspects, the clinical observer sees the plain and often contradictory significance of the patient's unwitting expressions of mental phenomena that are objectively manifested in his appearance and conduct. The physician, taking into account all the data, solves paradoxes and makes interpretations, that the patient cannot make of what he feels and seems to perceive. It is a part of the present purpose to make clear some of these apparently conflicting indications.

The study of the symptoms of neurasthenia means, then, the observation, and the careful analysis and discrimination, of the physical signs on the one hand, to differentiate them from the manifestations of more definite nervous diseases which are so often simulated in this disorder. We have, on the other hand, with these observations as guides, to discriminate in like manner the mental signs as expressed in the patient's appearance, conduct, and speech. The subjective symptoms are, therefore, of two kinds,—what the patient tells of his bodily sensations and mental feelings, and of his ideas of them, and what he manifests otherwise as expressions of his mental condition. The business of the physician is to make an interpretation of these phenomena, consistent with physical facts, and to give his patient treatment that is often as much of the mind as of the body.

The first and most obvious mental signs, taking the evidence from both of the sources just specified, are the characteristic depression of feeling,-lowering of emotional tone and a sense of ill-being. Coincident with these, but more upon evidence derived from the patient's own statements, are a decrease of the power of voluntary attention, -- attention becoming reflex, -- and sometimes decrease of the power of memory in its elements of retention and recalling, and in the association of ideas. The first order of these symptoms represents, in the changes of emotional tone, etc., the concomitant changes in the organic personality,--the patient speaks despondingly and appears dejected, -- he has "the blues." The second order shows, in the lessening of mental activity and inhibitory power, the abatement of cerebral energy,—the patient becomes conscious of this because of the increased sense of effort, and he may tell of it before it can be observed by others. Here is found the beginning of the sense of inadequacy of effort, especially the mental element of it, so strikingly characterized by

Beard and Mitchell; the patient has a certain consciousness of inability to control his own mind in his wonted way, and the consequent sense of more mental effort being required is tantamount to a sense of lessened power or an increase of the resistance or difficulty to be overcome. The sources and "mechanism" of these two orders of symptoms have been shown.

A third order of symptoms proceeds from the first two, as has been shown; it is somewhat later in appearance and marks a graver degree of nervous exhaustion. It includes introspection, or dwelling by attracted attention upon anxieties or prinful ideas, intensified by the prevailing emotional tone,—retrospection, which is a constant and striking symptom in those who, from a sense of inadequacy, lose hope and therefore interest in the future, and find it in the reviewing of past experiences, errors or wrong doings,—and apprehension, as sometimes a feeling of hopelessness, or vague fear of inability to meet the requirements of the future or the consequences of the morbidly intensified memories of past misdeeds. These constitute the condition of worry and hypochondria.

All these orders of symptoms are usually present in slight degrees, and coincident at the very beginning of pathological fatigue. Their severity increases with decreasing energy, from transient "fits of the blues" to the most marked forms of the disease. When the condition continues, reasoning is likely to be soon influenced by the bias of morbid feeling, and the law of practice, habit and association comes in, tending to fix the morbid "habits of thought" as well as the disorder in the concomitant physiological processes. Then secondary effects begin to demand discrimination, and the force of habit must never be forgotten. For example, a business man, having become neurasthenic from over-work and worry, may attend to his affairs, with excess of application, and feel better doing so, through the effect of habit, and the stimulating effect of attention and interest as excitants of cerebral activity and a quickened circulation. Let him attempt, however, to turn his attention to other matters, as to rational recreation, and his loss of power to control his own mind betrays itself. At the beginning of the attempted relaxation, as in taking a vacation, there may be more of mental effort, and of the depression of feeling, than in keeping on with his habitual occupations, though harmful. Or, again, such an experience as that described in a letter from a medical friend, who has had large success in

treating neurasthenia, and who contributes unintentional testimony on this point, as follows:-"I have been feeling so good-for-nothing and so blue that I have feared almost everything. These 'rheumatics' are not very comfortable companions, and the fear that they might get so bad as to prevent me from riding, has depressed me a good deal. I know that in other ways I am much better than a year ago, but in the past three weeks, when the letting up of work has come, there has also come a letting down of spirits. The work now is not more than one third of what I do when decently busy, but I get very tired when evening comes. I am all played out." It is altogether probable that had not his active season been terminated so soon by the beginning of the summer vacations, he would have gone on with his work and postponed the onset of his "fatigue" and the return of his annual attack of sciatica,—but doubtless with more serious consequences at a later day.

These cases show the three orders of symptoms, and represent later stages of the condition noted in the two examples of evening fatigue illustrating the genesis of pathological fatigue. They bear also a curious resemblance to another very common experience:-An occasion of severe mental labor,-perhaps of nightwork and little sleep,—is followed by a day of excitable alertness of mind and body; there is a sense of nervous strain, but with an undue mental facility and physical irritability. But after the next night's rest a sense of fatigue, languor, and malaise may come,—the second-day tire which leads to the inference that the elimination of an irritating stimulation has revealed the real fatigue. In cases of neurasthenia, at more advanced stages from long-standing or a more rapid development, the effects of habit upon the disordered physiological and mental activities become more pronounced. New symptoms also appear, due to greater changes in the nutritional processes, and particularly in the sensory mechanism.

The three orders of symptoms described refer to strictly mental phenomena and contain no mention of the irritability and languor common in this disease. These latter symptoms are both mental and physical, and they are direct manifestations of changes in bodily conditions. They now remain to be characterized as constituting a fourth order. We have therefore to examine further the subjective symptoms in respect to altered sensations. They include both those from the special senses and the largely pre-

dominating organic sensations. They may be distinguished as hyperæsthesia, paræsthesia and anæsthesia.

Hyperasthesia may be held to include all the phenomena of excessive irritability. It may be sensory or motor, or central and mental. General morbid sensitiveness is manifested by "nervousness" and restlessness; the patients, especially women, have a sense of "tension" and difficulty of self-control. There may be irritative and neurasthenic conditions of all the organs and minor mechanisms. The local hyperæsthesias are very many—as of touch, in which however there is no real increase of delicacy, but almost always a diminution. In many cases the commonly unperceived organic sensations are intensified. The sense of pain belongs to this group of "common sensations," and they include the neuralgias along with which there may be a duller perception of tactile impressions. Itching, burning, and other conditions bordering on pain, are included in this group of sensations that differ from the tactile sense.

Sensitiveness to ordinary stimuli in the organs of special sense, particularly of sight and hearing, is common. The visual troubles are not very serious, but there is always some weakness and increased irritability. Reading causes fatigue and pain and leads to headache; and there is sensitiveness to light. Muscular insufficiencies occur. Visual memories are lessened. The hearing is over-sensitive in many cases, and the patient is very intolerent of slight noises. This may be due to the general mental irritability, and to expectant attention. These neurasthenic symptoms may be continued after recovery as the effects of mental habit. Hyperæsthesia may be regarded as the first degree of sensory disorder and weakening.

Parasthesia, or perverted sensation, may be considered as representing a second degree of sensory disturbance and change from normal feeling, and may be general or local. Internally these disorders include giddiness, vertiginous sensations, a sense of muscular relaxation, etc. According to Gowers, the afferent impressions constantly passing to the cerebro-spinal centres, fail to affect consciousness under normal circumstances. But repeated attention may vastly increase the sensitiveness of the perceptive centres to such impressions, and from such increase arise sensations of great discomfort, sometimes amounting to pain. In the case of an intelligent lady whose conscientious efforts to disregard her ills stamped the description as genuine, there was, at times for

many months, a feeling "like a stream of pounded glass running down the spine into the pelvic cavity." There may be perversions of the peripheral sensations, as pressure on the top of the head and of a band about it, a sense of expansion of the skull or as if it were empty. Feelings of flushing, both local and general, may occur, and numbness and coldness as alterations of the temperature sense, etc., in different parts of the body. This and the sense of pressure are to be distinguished as special functions, differing from tactile sense. Creeping sensations, tinglings and formication, are common among the paræsthesias.

Anæsthesia is the final degree of changed sensations, and may be partial or complete. For example, numbness of the hands and feet is not uncommon; and there are limited anæsthesias of the tactile sense in various parts of the body, or this sense being retained, there may be analgesia as simply the loss of the sense of pain. The lowering of sensory activity in general, or diminished sensitiveness, has been observed. This is common enough to demand recognition as one of the characteristics of neurasthenia along with "excessive irritability;" in both alike there is probably a toxic influence, or its secondary effects. There may be limited areas of anæsthesia or hemi-anæsthesia, particularly in hysterical conditions, although "hysteria is essentially a mental disease involving the emotional faculties and the will."

The importance of these altered sensations is very great for their diagnostic value and as a guide to treatment in neurasthenia. Such disorders of the sensory apparatus of the special senses, as is well known, lead to the illusions and hallucinations, or disorders of sense-perception, in the graver degrees of the exhaustion of melancholia and mania. But the organic or common sensations are of fundamental importance, for, according to Ribot, "As the organism, so the personality." Taking the evidence of our bodily feelings, the sense of physical personality is the organized and coordinated sum of its elementary factors. Persisting alterations of organic sensations are aberrations of the physical personality, or as Bertrand calls them, "the hallucinations of the sense of the body." A man believes himself to be what he feels himself to be. He finds in the evidence furnished by the sum-total of his feelings the data for his judgments of himself. These sensorial alterations are doubtless expressions of more deeply seated disorder due to localized and limited derangements of the circulation. A limited central exhaustion and excitation may be accompanied peripherally by vascular irritability and disturbance.

The relation of these altered sensations to their mental effects has been considered, and something has been said of the converse effects of mental states, as to the emotional tone and attention, upon the physiological activities. The mutual influence of mind and body upon each other is of great importance here, as to the causation of the conditions manifested by these changes in the organic sensations. For example, Mossa has demonstrated that hyperæmia of the brain is coincident with mental work. It is physiological that centres becoming inactive resume a normal and comparatively anæmic state. The removal of the excess of waste that attends activity being accomplished by due periods of rest. the centres recover their normal condition, and work may be resumed on awaking from sleep. With over-work of the brain. and prolonged and probably localized hyperæmias, the exhausted vaso-motor apparatus becomes unable to control the blood-supply: local and relatively chronic hyperæmia in the over-exercised centres may follow and become pathological. In this state work may be continued by voluntary effort, but there is sleeplessness, and breaking down of the general health. The exhausted and poisoned brain, and nervous system generally, afford only a defective innervation to the various organs of the body: and the characteristic symptoms of dyspepsia, constipation, palpitation, and the like, appear, with all their sequelæ of altered sensations.

Macfarlane* describes the symptoms of this condition of neurasthenia as tolerably uniform,—sleeplessness being one of the most urgent, usually associated with throbbing blood-vessels and restless cerebration, dreams connected with the daily work, and the sleep obtained being disturbed and unrefreshing. The element of worry has been shown to be a prime factor in all these neurasthenic conditions. It is especially noteworthy that Macfarlane mentions certain symptoms of present interest,—they are the most prominent signs of the earlier alterations of coenesthesis so well studied by Ribot. The former says: "Exhaustion and misery are felt in the morning; depression, despondency, and irritability during the day. All mental and physical work is accomplished with an effort, concentration of thought is difficult, and headache is seldom absent."

Two Special Conditions Resulting from Changed Sensations.— The sensations, when localized and limited, may be estimated cor-

^{*} Op. cit., pp. 78-82.

rectly, while the more general and pervading ones cannot be so well corrected. There are two prominent conditions due to changes in these general sensations that are of the highest clinical importance in neurasthenia.

The first of these conditions is "morning depression" or "morning tire." It is sometimes called "morning misery," but the tire is the essential fact. Both the mental feelings and the common sensations are altered by increase of intensity, and measurably represent the truth as to the bodily condition, although they still appear contradictory and lead to mental error. For example, a patient having fairly comfortable and cheerful feelings during the latter half of the day and in the evening, sleeps more or less well till the early hours of the morning. But on awaking he is in the depths of depression. Instead of being refreshed by sleep, all his feelings of inadequacy, misery and hopelessness are then at their keenest. The physical signs of exhaustion are more manifest. The patient feels added alarm because the sleep has not done him good in the natural way. After breakfast he feels better, and by the middle of the forenoon his circulation is again active and steady and perhaps accelerated. The press of business and the daily interests are stimulating, and his nerve-cells, while probably giving out as much as they are taking in of energy, are evidently better nourished than in the nocturnal condition of functional inactivity. This symptom is significant by its daily recurrence. It is among the leading ones of neurasthenia; and it may occur in all degrees, from the morning feelings of being unrefreshed, to a recurring sense of misery and despair that prompts to suicide. The physician should detect this symptom of morning tire and depression, which appears early in the disease, and should not be misled by the patient's evening sense of comfort. The morning more nearly represents his true condition.

This symptom of "morning tire" has long been observed in melancholia, but it is now being better explained as evidence of neurasthenia. The "mechanism" of these phenomena of "distressing awakening," is most complex and involves the problems of the physiology of sleep, the rhythm of nocturnal rest and relaxation and daily activity, and the "pathology of night," of which interesting studies are of late being made.* A valuable bibliography of the subject is given by Ch. Féré.† Broadbent ‡

^{*}See Macfarlane, Lancet, Vol. I., 1891, p. 824.

[†] Art, Pathology of Night. Brain, Oct. 1889, p. 308.

[#]The Pulse, p. 76.

says: "It is in the early morning that depression of spirits is liable to be at its worst in nervous debility, so called; or there is the morning headache which is relieved by the bath and breakfast, or wears off as the day advances; or the subject of this affection is more tired on waking up than on going to bed." Haig* says he has "no difficulty in proving that it is just in these early morning hours that the excess of uric acid in the blood is greatest, and its effects on arterial tension most marked." Uric acidemia in its relation to disorders of the circulation, and to irritability, languor, and depression, certainly invites careful inquiry.

The significance of these tired awakenings is very great, as a symptom of morbid sleep which may be due to a variety of causes, involving particularly the weakness of functional power, through its exhaustion or annulment by toxic influences as in neurasthenia.

The other special condition is that of anasthesia of the sense of fatigue. It results from altered organic sensations; and the truth as to the bodily state is obscured by the change or absence of certain data of sensation that go to make up a man's judgment of himself. The indications are paradoxical and misleading.

In the example of morning tire just mentioned the excessive work and worry might go on with increase of cerebral or general exhaustion; also the misery of the morning might be continued. Then a strange phenomenon may happen. The patient, who has before complained of his fatigue, now says he does not feel tired. He may have no definite sensations of inner discomfort from the dyspepsia, constipation, etc., although the general miserable feelings will continue with lessening or disappearance of the evening recuperation. Still, he claims that he is not tired,—that there is nothing the matter. His attention is more and more concentrated upon the objects that have habitually interested him, or upon his morbid ideas, with lessening power to turn from them. Thus the process goes on in its vicious train.

This is one of the commonest of all symptoms and often appears early and in slight degrees. It represents the descent of the patient's condition towards the depths of nervous exhaustion, and to a point where the sensory power itself is materially lessened. The patient, previously guided by the sense of fatigue in desisting from effort, has now lost his guide,—his natural feeling. He cannot believe his physician or his friends that he is over-tired. He is conscious of inefficiency, mental and physical; and he feels

^{*} Loc. cit.

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added self-reproach because he cannot accomplish what he ought when he does not feel sufficiently ill or fatigued to justify relaxation from duties that are pressing, or seem so to him. The stimulation of change, travel, etc., is often prescribed when there is this fictitious appearance of the patient's ability to bear it. Tired women will carry on their domestic duties by "working on their nerves," or walk for miles without natural fatigue, seeking health in "exercise" when it is most damaging. This symptom comes out most clearly in cases that have advanced, or descended, to melancholia, but it is a true index of the neurasthenic state in all its stages, and has its lesser forms in many of the milder cases. In the extreme cases the lifting up of such patients from the depths of exhaustion is a most interesting process to watch, when they "come to the sense of feeling." If previously agitated, restless and apparently unfatigued, they grow more quiet, -sometimes they take to their beds with a profound sense of weakness. They say they feel worse, and are alarmed as well as their friends; but they are really better. This is a distinct stage in the upward progress toward recovery.

The conditions of melancholia, in its most neurasthenic stages, are among these in which this symptom of change of the sensations that go to make up the sense of fatigue is most plainly declared. In one class of cases there are the conditions of diminished sensitiveness, dulness or languor, affecting in different degrees both sensory and mental activities even to the degree of apparent or real stupor, in which the motor paresis is so striking a symptom. There is in these cases a manifest consistency in the presence of a blunting effect upon the sense of fatigue. It seems consistent enough also in that class of cases in which there are the associated symptoms of mental agitation, irritability and restlessness as manifestations of hyperæsthesia that are continually prompting the patient to motor activity, -just as analgesia may exist with a hyperæsthesia which itself is attended by a diminution in delicacy of touch. It is of course true that the attention plays its part in the matter,—the attention being occupied by intensified ideas and emotions either of pleasure or of pain, there may be, for the time, an unconsciousness of the sense of fatigue that might be felt if attended to; so it is in hypnotism, or when contusions are not perceived in a foot-ball scrimmage, or even fatal wounds in battle by men who live long enough to tell of them. But this fact does not militate

against the validity of clinical observations and confessed experiences in the cases of many intelligent patients in whom the condition is of long continuance. In the extreme cases of agitation and restlessness, as is well known, the patients will walk and walk by the hour, sleep fitfully, turn in their beds or leave them many times, often restlessly changing their positions by day and by night. Like symptoms of restlessness are observed also in many cases of neurasthenia without the full array of mental symptoms requisite for a diagnosis of melancholia, but both these classes of patients often declare the absence or blunting of the sense of fatigue.

This phenomenon appears in cases presenting such early stages as those described to illustrate the genesis of pathological fatigue. There is evidence of this peculiar symptom in the graphic statement, quoted from the physician who felt excessive tire and the "letting down of spirits" as soon as his work was reduced to one third of that he had just previously been doing. All the conditions of the "fatigue" were undoubtedly present before the "letting up of work" in which the exciting stimulation to activity possibly created peculiar toxic products which obscured the real condition. At all events, in such conditions as these and the equally common experience of the "second-day tire," there is that state of pathological fatigue which is marked by a notable absence of a due sense of tire. It is certainly obvious, as a physiological fact, and as a clinical observation, as in the illustrative cases, that the degree of bodily and mental fatigue is not measured by the feeling of it. It is one of the most familiar of all familiar facts that men and women are continually over-doing themselves without knowing it. When a condition of pathological fatigue is established, this anæsthesia of the sense of fatigue, in some degree, becomes a part of the general condition. It is important to recognize it, -to give it a name, -to teach the patient to understand it, -and then the great value of its recognition as a diagnostic guide to treatment will appear. Knowledge of it also has often the happiest effect upon the patient in gaining that condition which Mitchell sought before the rest treatment could be begun,—"the absence of thought with the friction of worry which injures." The patient being at fault in attempting to judge of himself by his altered and blunted sensations, is always alarmed at the mystery of his anomalous and contradictory feelings. With the feeling of inadequacy from a sense of abated

motor power there is exhaustion also of sensory power. An intelligent patient always understands when told that there is tire, not only in the power to do things, but in the power to feel the tire. An apparent mystery is readily cleared up by this explanation, because it so fits the facts of the patient's experience. Then he can see the force of the rule that he must limit his exercise by quantity and time, and not by feeling.

In the wide range of conditions from the milder to the severer stages, they are constantly presenting paradoxical phenomena, as they may well do, when the one neurasthenic cause is the basis alike for anæsthesia and hyperæsthesia and all their attendant trains of symptoms which are apparently so contradictory. Not in all cases does this anæsthesia of the sense of fatigue appear, nor always in like associations with other symptoms. There are different classes also according to temperament, character and Women with the "New-England conscience" need always to be held back against over-effort, and to early effort in all stages of the disease, particularly of convalescence. Whether or not in the course of the neurasthenia there has been a middle period of melancholia, or the like, the principle is always the same. Then in such cases, in the condition of relative comfort and exhilaration which makes the delight of the period of convalescence, there is always danger of over-exertion. The sense of fatigue not being fully recovered, it is at one time felt and again lost as a sequence of some indiscretion in exercise—some overstimulation of emotion, either pleasurable or painful. This is the time for the greatest caution. But when at last the patient feels naturally tired, even though upon moderate effort, and can appreciate the restfulness of repose, then is convalescence assured if conducted with care within the limits of the recovered energy.

This analysis and estimate of the clinical manifestations of neurasthenia go to show how gravely significant and dangerous is the condition which is represented by the symptom of diminished sensitiveness, or anæsthesia of the sense of fatigue. Immediately concurrent with the induction of pathological fatigue, with its dual elements of diminished energy and auto-intoxication, almost the very first effect of these is to begin the annulment of the sense that prompts to the conservation of nervous energy. When this peculiar and very common effect is produced, the greater the exhaustion the less the direct sense of it through the normal channels. The patient vaguely feels a lessened adequacy to effort of

body or mind,—a lowering of the emotional tone,—many sensations of misery as emphasized in the morning tire,—much irritability and restlessness,—and often the changes characterized as hyperesthesia, paræsthesia and anæsthesia; in like manuer there is alteration of the sense of fatigue, in some of its complex elements.

There is another class of cases in sharp contrast with the type just described. They have usually been long ill and have developed secondary conditions. Rest being at last enforced, by the completeness of the break-down, or becoming a habit by indulgence, the rest treatment is sometimes carried too far, probably, beyond the point where exercise should begin. This is a point. difficult to determine, but the positive gaining of weight is a good guide. But in the condition of the prolonged "bed-cases," or in the relapsing cases, there is likely to come, when they grow fat and when they do not, a state in which fatigue is keenly felt. As an extreme manifestation of this is the inability to sit upright, to hear reading or talking, etc.; even the slightest muscular exertion, as the raising of an arm, is distressing, and there is great sensitiveness to sound or light. There is not only "horrible depression" upon slight exertion, but a "terrible exhaustion." The quickened pulse, palpitation, change in color, etc., are physical signs in proof of great weakness in such cases. This appears, indeed, like hyperæsthesia of the sense of fatigue in some of its complex elements; but when these cases are led to convalescence, it is long before the natural sense of fatigue, and resistance to its quick disturbance, is recovered. With the dyspeptic aversion to food, the weakened power of assimilation of what is taken, the discouragement of many relapses, and all the effects of habit, these cases are difficult enough.

The mechanism of the sense of fatigue is obscure, as is the complexity of its origin. The difficulty of distinguishing between the central nervous fatigue and the peripheral fatigue of muscles has been noted. The central sense of innervation, and of the need of increasing effort with the increasing fatigue, would seem to be necessarily an element in it. But this very mental activity of brain cells is assumed to yield, along with waste products and work, the organic sensations of fatigue. Again, the same is true of the muscular sense, or sense of weight, as affording sensations of work being done, of exhausted energy, or of disability of contractile power. But the muscular sense is said to belong rather

to the special senses, and we see it still acting normally in the cases of pronounced fatigue-anæsthesia, when there is no marked ataxic change of muscular coordination, even in very restless and irritable cases. Is it, indeed, but a question of the degree of alteration of the muscular sense? With doses of alcohol, ether, and the like, we may first blunt the sense of fatigue, then more and more the sense of weight, even to its annulment as the necessary element in coördination of muscular movement, and the result may be the ataxy of intoxication. In the transitions between these first and last stages of changed sensations, as the effect of one and the same poison, does the common phenomenon of the anæsthesia of the sense of fatigue in neurasthenia represent but a first stage as a peculiar effect of some special poisoning? We have not as yet, in the study of these pathological conditions, the data of experimental study to demonstrate the mechanism of this symptom. But we have certainly the final fact of its clinical manifestation, and it stands the test of the practical application of this explanation of it.

With this additional study of these alterations of organic sensations, the way is prepared for a characterization of them in a summing up of the symptoms of neurasthenia. Three orders of these symptoms have been set down; the fourth order should therefore include those relating to the alterations of sensitiveness, both in the direction of anæsthesia and hyperæsthesia, and should present the conclusions drawn from this last analysis and estimate of them. It was previously shown that, in these alterations of sensitiveness, there is included a prominent condition other than the excessive irritability. It is the physical lassitude and languor, and motor weakness, pointed out by Brunton as suggesting curare-poisoning. This has its counterpart also in the condition often observed in melancholia when the mental state is characterized as one of stupor, which it simulates. In neurasthenia there are often simply lesser degrees of this lassitude and languor. these symptoms have certain objective manifestations, but the following statement includes, in their four orders:

The Subjective Symptoms of Neurasthenia.—1. Depression of spirits,—lowering of the emotional tone and a sense of ill-being.

- 2. Decrease of the power of voluntary attention (reflex attention), and sometimes of memory; a sense of inadequacy of effort.
- 3. Morbid introspection, retrospection and apprehension (worry, hypochondria).

4. Diminished sensitiveness, dulness and languor (anæsthesia); irritability and restlessness (hyperæsthesia).

These minor orders of symptoms go to make up a symptom group that forms a clinical picture of neurasthenia, to which may be added the more obvious objective signs, covering the elements of many possible variations of its forms. The sources and mechanism of each order of symptoms have been studied, and this should furnish the data for a precise definition of the disease. That of Dana already quoted, as well as others, is limited to the specification of the excessive irritability and weakness. should be included the element of languor that represents the fundamental element of toxic blunting of sensitiveness; and while this, and the specification of excessive weakness and irritability, imply a mental element, the prime importance of it as early recognized by Beard and Mitchell, is not adequately noted. On the basis of the foregoing summary of symptoms the amended definition may be written as follows: -Neurasthenia is a morbid condition of the nervous system, and its underlying characteristics are excessive weakness, and irritability or languor, with mental depression and weakened attention.

The treatment of neurasthenia, in its adaptation to the clinical observations of its phenomena through its various phases, affords corroboration of the principles already set forth; and it presents some considerations that may aid in elucidating this view of the mechanism of these and the graver degrees of nervous weakness as seen in ordinary insanity. In other words, the philosophy of the treatment, as a practical matter, helps to make clear the nature of the conditions with which we have to deal.

The objective indications may be passed over, for the present, with the statement that elimination is logically a prime element in the treatment, in view of the accumulation, in the body, of toxic materials. The other requisites are nutrition, rest, exercise, always kept within the limits of fatigue as the golden rule in neurasthenia, massage and sleep. Seclusion is important in some cases, but this is more particularly addressed to the mental state. The relation of these measures to the conditions treated, and the observed effects, are sufficiently obvious, as being in accordance with general therapeutic principles.

The subjective symptoms, in certain particulars relating to the variations observed in them under different conditions, have a special significance. In the study of this group of symptoms, we

have first to take into account what the patient says of his bodily condition; his appreciation of it may be mainly correct and corroborative of the the physician's observations of the coincident physical signs, or may be interpreted as consistent with them. But when we take into account also what the patient savs of his mental feelings, and try to determine what his mental condition is, there is greater need of correctly understanding them. We have seen how the normally correct appreciation of the "sense of body" is qualified in the well; and how with the onset and increase of pathological "fatigue" there is an increasing impairment of appreciation, requiring interpretation by the physician. We have seen also how the impaired and altered "sense of body," and special senses as well, in respect to the group of subjective symptoms just mentioned, affect the strictly mental indications. All can agree as to the symptoms of neurasthenia being mainly subjective; and as to the fundamental facts of irritability and languor in mind and body, -and of mental depression and weakened control. Our study of the mechanism of these alterations of mental activity leads us to see clearly the significance of such effects, and that "the higher mental states are the sensitive indices of the lower physical changes," affording us the truest guides to diagnosis and the need of treatment.

The subjective symptoms, with a correct interpretation of mental states, are the chief guides to diagnosis and treatment. They give the earlier and finer indications, for they always exist when there is neurasthenia; they are often present, and complained of, when there are no clear objective signs. The paramount importance of recognizing the mental condition becomes plain because it has to be treated from first to last; there is often no guide but this. Even when all objective signs have for some time disappeared, in the progress towards recovery, there can be no assurance of it until the patient can say that there is permanent freedom from the depression, irritability, or languor of feeling, and that he has acquired the power to control his own mind, and his natural force is not abated. The most critical periods of the progress when the danger of relapse is greatest. are when the only guides to the limits of fatigue are the subjective and mental symptoms, -what the patient feels and thinks as to his own condition. But that itself does not guide,—it is continually leading astray the patient and often the physician. The true guide is to know what it is that makes the patient feel and

think as he does. A correct knowledge of the working of the mental elements is essential to put the physician into a proper and controlling relation to the case.

The application of these principles, and the correct analysis and interpretation of the symptoms, make clear the reasons for the different modes of procedure required. These may be broadly distinguished as suited to two general groups of indications representing the first-effects, and the after-effects of the neurasthenic condition. Among the first-effects, or those attendant upon the active operation of the neurasthenic influences, are the direct and immediate results of excessive expenditure of energy, deficient repair, toxic effects, etc.; these may represent the formative stages of the supposed "molecular or chemical variation" that is manifested as "an exhausted or changed nutritional power." Among the after-effects these changed conditions become more pronounced; the expenditure of energy may be greatly lessened, but it is limited by its relation to weakened assimilation; the toxic elements may have been largely eliminated, though some of their effects remain; the condition is more strictly one of "irritable weakness," and all the secondary effects of morbid habit and association are in full force. The neurasthenic condition as modified by after-effects presents a materially different problem as to mental treatment.

In the early and active stage of neurasthenia, the problem is a relatively simple one for the analysis and interpretation of the mental symptoms as a guide to treatment. The history of the case should make it easy to distinguish the four orders of the subjective symptoms, and to trace their development. Take for example the case of the physician whose account of it was quoted, in a previous page, from his letter. At the closing of a busy year, while still doing very active work, he felt that it required greater effort; he could not help worrying unduly; there were threatenings of the sciatica to which he had been the most subject at that time in the year, and he sometimes felt considerably fatigued. After three weeks of greatly lessened work, the four orders of symptoms were more plainly revealed; there was (1) "a letting down of spirits;" (2) lessened control over his worry; (3) the worry was consequently increased, and there was (4) an altered "sense of body," shown in nervous irritability and languor, and excessive sense of fatigue. The condition being further interpreted, there was more real "fatigue," but it was concealed by a

fatigue-anæsthesia when he was still active, then-later when he felt it more keenly after partial rest. In other words, he was really better when he felt worse,—he was recovering his sense of fatigue. This was proved by the sequel: in the fourth week, with no change in affairs, etc., and no treatment other than the comparative rest, he was feeling much better, was changed in appearance, had recovered his cheerfulness, and began his summer vacation with better zest than for a long time before.

In another case, a lady engaged in clerical work had for three months an increasing tendency to aching and a sense of pressure in the head, and to waking early in the morning; she would not confess to "tire in the morning," but said she felt "worse" then; she worried, felt the need of greater effort to begin her daily task, but "could work faster" than before, and being conscious of not feeling well, she expected a short vacation to restore her strength. On returning to duty, the work seemed very difficult and not half done on the first day, and impossible the next, from weakened mental control; the insomnia, worry, etc., greatly increased, and a prolonged rest with careful treatment had to be ordered. She knew she was "running down," by failing appetite and loss of weight. Otherwise, there was little in either of these persons besides the subjective symptoms to call attention to the neurasthenic condition; neither was it appreciated by them until there was lessened stimulation by work to be done. The four orders of symptoms were plainly shown in the last case; their earlier recognition would have clearly guided treatment obviously necessary to have saved the patient from so dangerous an approach to a serious mental breakdown. This applies particularly to the fourth order of symptoms,—to the fatigue-anæsthesia, and the deceptive facility from irritable weakness, that enabled the patient to "work faster," thus increasing her danger. In the more advanced cases, the mental indications, as first-effects, are clearer, and their analysis easier. Their value as guides to treatment is more readily apparent, pointing to their origin in organic inanition and auto-intoxication as the double cause of the "fatigue."

The after-affects of the neurasthenic condition present modifying indications that have to be met in the plan of treatment. These are seen in the later stages, either in convalescence or chronicity. The significance of the symptoms, in this regard, has been pointed out. For example, one who has regained some reserve of nervous energy, and maintains a fair degree of comfort

when effort is kept within his limits of fatigue, may be prompted by desire, or a sense of duty, to over-exertion. The undue quickness of response to the stimulation of interest and attention is to be recognized as an evidence of the irritability of unstable weakness. The apparent ease and zest of the effort is not due to real power, but there is a speedy blunting of the sense of fatigue. The reaction of exhaustion and mental misery that come as aftereffects are not to be interpreted as the patient feels and thinks, but as precise manifestations of—(1) changed organic sensations shown in a lower emotional tone and "hopelessness,"-(2) the decrease of the mental power of control in weakened attention,-(3) worry, self-reproach, and apprehension as simply signs of a relapse of the "fatigue," the limits of which were exceeded in breaking the rule of treatment. The fundamental weakness is shown, from the beginning of the event, in (4) the susceptibility to stimulation and quickly changed sensations, followed by increased exhaustion and irritability.

Such an analysis of a later stage of neurasthenia reveals the four orders of symptoms as we may observe them in a case under proper treatment, in which there may be a measurably effective elimination, but defective assimilation still remaining, and therefore prolonged inanition. The irritable weakness is more characteristic, and the indications for treatment are all the more significant. The whole matter comes, in fine, to this:—the condition is one of deficiency of nervous energy,—the problem is to effect a re-storage of that energy. It is a part of the process that the power to do things can only be maintained or regained by the doing of them,—by the law of use and disuse. But the patient must always be "kept within the limits of fatigue" during treatment, through convalescence, to established recovery.

It is in these later conditions, those of the after-effects, that the advantage of intelligent coöperation on the part of the patient becomes very evident. One of the chief reasons for the need of this is that his sense of effort and of fatigue has not yet become normal, and he must be carefully guided by his physician. The patient must be taught to make a correct interpretation of his symptoms, and learn finally to be his own guide as to the limitation of effort. One cannot "go by feeling," whose power to feel is itself disordered, and this lesson once learned has a therapeutic value by leading the patient to "go by judgment." But his attempts to do this often show that it is

precisely because of weakened attention and intensification of morbid feeling that the better and often accepted judgment can not be held.

The foregoing consideratons apply particularly to the large class of patients that have to be systematically "held back" in all stages of the neurasthenic conditions. In the opposite class of cases that require urging to effort, when the proper time comes, there is revealed more plainly another modification that is common to all cases in the condition of after-effects, and it always introduces great difficulty into the treatment. It is the effect of the laws of use and disuse,—of practice, habit, and association. The long continuance of disordered activity has created a "functional disposition to repeat organic processes" in a morbid way, and it has been shown how this involves a like association of morbid ideas and feelings.

The "functional disposition" may work to good or bad results. In either case the principle is the same,—the law of use and practice rules. To overcome a harmful "disposition" to repeat organic and mental processes is exactly to re-acquire good habits by the practice of them. Hence it is that the power to do things comes by doing them, and by gradually gaining the effects of practice. Small beginnings are necessary in these cases of neurasthenia. It is the persistence of repetition that is efficient. In the condition of first-effects there is lack of power, and it is plain that there is no place for heroic methods of breaking up morbid "dispositions" and habits. More harm than good is likely to be done by dominating methods unless based upon a clear insight. But forceful measures may sometimes be wisely used; it is only when power is sufficiently restored that such measures are justifiable as against morbid habit in the after-effects.

The management of these cases that require urging to effort is always difficult; there is here the greatest need of a correct interpretation of the symptoms. It is the rule that "exercise should always be kept within the limits of fatigue," and we know that the guides to those limits are very obscure. It is equally the responsible task of the physician not to overdo his duty, in the cases that have to be held back, and in those that have to be urged to effort. It is precisely in the extreme cases of the latter class,—what Mitchell would call the "vampire" type,—that the greatest discretion must be used. Such patients are often the victims of morbid association-habit and a self-indulging egoism; under the

spur of a seemingly perverse interest, they will sometimes make unwonted and extraordinary effort. We must realize that this may be done without a concurrent sense of fatigue, which may come later in a real and most painful way. Then the patient has a new argument to sustain her self-deception that all effort is bad; and even the physician is sometimes put at fault if his heroic measures are not successful.

We often ask ourselves, in all cases requiring enforced effort, what are the "limits of fatigue"? It is perhaps the clearest guide in such cases that "exercise" may be pressed with safety while the fatigue of it is felt, even sometimes to the degree of painful tire when comfort is restored after a due period of rest. It is the limits of pathological fatigue that are not to be entered upon, and of this due warning is given by the signs of fatigue-anæsthesia. The rule should then be that exercise should always be kept within the limits of pathological fatigue. This applies as well to the graver cases of neurasthenia presenting mental symptoms, when the progress upward toward recovery reaches the degree where normal fatigue is felt. In such cases, after the symptom has been left behind that technically differentiates melancholia, it is neurasthenia the rest of the way to health.

These considerations derived from the clinical observation of the treatment of neurasthenia, show how the principles here set forth are put to the test of their practical application. The truth of the principles themselves is thus made clearer. It is to be seen also that while, according to Krafft-Ebing, psychiatry "seems almost exclusively dependent on itself, and limited to the direct observation of psycho-pathological phenomena," there is a close relation between these and known physiological activities and their laws. We may see the force of his injunction to pursue a "tireless observation of clinical phenomena," and that "the course of the processes in the psychoses are discovered through observation" as in any other disease; also that an "empirical valuation" of these phenomena may enable us to "draw conclusions as to the kind and degree of the functional disturbance of the psychical organ."

This study of pathological fatigue in various manifestations has revealed evidence as to the causation of definite mental symptoms, in their genesis and development. In the course of this discussion the alliance between neurasthenia and melancholia has been made prominent in support of the proposition that the latter is mani-

fested by a group of symptoms which respresent simply graver degrees of nervous exhaustion, in somewhat diverse forms, than those which constitute neurasthenia. This alliance will be made plainer by a consideration of their differential diagnosis.

# DIAGNOSIS OF NEURASTHENIA.

Neurasthenia being regarded as a condition of the nervous system, manifested by functional disorder and without structural changes being as vet demonstrable, and presenting symptoms of so many variable phases, its determination as a disease is peculiarly limited to the method of exclusion. It is not only a direct result of stress and wear on the one hand, but it is so constantly secondary to debilitating influences of all kinds,-the "general debility" of our fathers in medicine,—that it has often to be differentiated as being the remote and not the immediate effect or symptom of some antecedent disease. In other words such a disease may pass away and leave the nervous symptoms to continue as if somewhat by habit. On the other hand, it is the initial condition and often the sole basis of a great variety of symptom-groups, which are framed into pictures of "clinical entities;" it must therefore be differentiated from those disorders of the nervous system in which something has been added to the simple neurasthenia, of graver functional disturbance and perhaps of definite structural change.

Neurasthenia often stands as a middle term between general etiological conditions and nervous disorders. It simplifies and clarifies the view, to regard neurasthenia as the common etiological and initial term to many varieties of symptom-groups, and even of definite nervous diseases, about which there is so much confusion as to their etiology. This is peculiarly true of mental diseases with which we cannot yet get beyond a classification of symptom-groups.

The nutrition of nerve-cells being primarily at fault, toxic influences being always primarily present, central disorder of the nerveus system being usually manifested by the earlier symptoms, and cerebral exhaustion through mental strain being one of the most common forms, the diagnosis must often be made solely upon the subjective and mental signs. This may be done early enough for prophylaxis in many cases. Any notable and persistent alteration from the natural manner and appearance, indica-

ting a lowering of the emotional tone, in persons otherwise in apparent good health, suggests inquiry as to the cause of the abatement of natural vivacity and the lack of the usual mental control manifested by unwonted irritability of temper which may be confessed. These premonitory indications are of the most practical value. Active professional and business men who do much brain-work and incline to sedentary habits, women under a monotonous strain of domestic life or subjected to special mental anxiety and grief, or the indolent who suffer especially from functional disuse and defective elimination, all, at times, are likely to experience these mental signs of "fatigue" and toxicity. The primary order of symptoms being present, and the causes continuing, some of those of the other three orders that have been specified will soon be manifest in some slight degree, and be more or less slowly developed. The study of the genesis of these subjective symptoms and their nature as summed up in the foregoing section, may serve to show now their natural order of development affords a method of analysis that is an aid to diagnosis.

Neurasthenia should first be differentiated from the antecedent conditions, with a discrimination of its immediate and remote causes. This demands a determination, as far as possible, of the nature of the inanition and the auto-intoxication, whether partial or general, -and, otherwise, the study of the "mechanism" of the symptoms. This implies, at the outset, a careful study of all the objective symptoms by the usual methods of diagnosis. Their character as due to neuroses must be established as at least probable, to the exclusion of organic diseases of the nervous system, although these may still have a neurasthenic basis that is amenable to treatment. The inquiry is then led into the central "weakness," the diagnosis of which points out the need of general treatment rather than of medication for the localized disorders. The objective items of the most practical diagnostic importance in this regard are of two classes, and pertain to the elimination of toxic waste products, and to the processes of repair by nutrition and toxic influences.

The way is now clear for a further differentiation of the subjective or mental symptoms to determine the diagnosis and prognosis with respect to melancholia. It must be remembered that many cases of melancholia have no more than the four orders of symptoms,—no delusions, and no essential impairment of

integrity of the reasoning power; -it is a question of degree. On the other hand, very pronounced manifestations of these orders of symptoms, more than in some of the cases of melancholia, will not truly bear that diagnosis, although the underlying organic conditions are of the same nature in both these types of cases. Difficult as it is to draw the line between "nervous prostration" and melancholia, the mental symptoms are the basis of the differentiation, and the crucial test may perhaps be best stated as a question of the degree of impairment of the higher power of inhibitory control, -- the weakening of the voluntary power exercised through the attention. But the attention in these conditions becomes more and more subject to the emotions,—to the control of the painful motive interest. There may come a time in these conditions when painful ideas become so dominant, because of the inability to inhibit them, as to endanger the patient by promptings to suicide. Then we unhesitatingly say, it is melancholia, and that there must be medical restraint. But in many cases the true conditions of melancholia are established before this symptom comes. It is a matter of temperament, education, training, "habits of thought,"-there are those who withstand to the last degree the nervous exhaustion, the misery of mental pain, the profound depression of feeling, and the terrible temptation to seek relief through "the open door." But many are weak in will and inhibition, and yield early to specious reasoning and the bias of the emotional tone, for whom recovery would be as sure as from other forms of functional weakness. But this bias of emotional tone, which more or less influences all alike, may depend exactly upon those alterations of the "sense of body" which annul the instinctive love of life, thus technically establishing the diagnosis of melancholia. The differential diagnosis of neurasthenia and . melancholia, then, depends upon an estimate of the degree of nervous exhaustion with reference to the mental symptoms, particularly as to depression of feeling and weakened inhibition. This estimate must include a judgment of the individual as to character, and of the probable continuance or increase of the alteration in the organic sensations as affecting the natural instinct of self-preservation. Such alterations become the basis of a fifth order of symptoms which complete the symptom-group that constitutes a typical melancholia. It will be said that there may be a condition of true melancholia without this fifth order of symptoms. Such a condition is one in which there is always reluctance

and often difficulty, in undertaking to make a differentiation between neurasthenia and melancholia; it is indeed the difficulty of drawing the line between sanity and insanity. If, then, without this fifth order, the morbid condition is admitted to be a true melancholia, we must regard it at the same time as an intensified neurasthenia with its four orders of symptoms. With the development of the fifth order,—which includes the suicidal impulse,—in the sequence often clinically observed, the diagnosis is then clearly established.

The physical or objective signs do not afford a good differential guide as between neurasthenia and melancholia. The latter may exist without more pronounced symptoms of general debility, disorders of digestion, and other characteristic signs, than are common to neurasthenia, although they are often seen in melancholia.

The two special conditions of morning tire and anæsthesia of the sense of fatigue have been described as of the highest diagnostic value in respect to the neurasthenic condition. They do not afford differential indications, however, except that these symptoms are usually more pronounced in melancholia. It should be noted that morning tire is common as a transient symptom after excesses in dissipation or in over-work, but it becomes significant in neurasthenia by its more or less persistent recurrence. The fact that these two striking conditions are common to neurasthenia and melancholia goes to prove their etiological unity.

Hypochondria may be differentiated as being subject to the principles just stated in so far as that it is a milder, or a sub-acute, melancholia, in which the patient has peculiar worries over his own bodily ills.

"Insistent and fixed ideas" include a great group of affections that have a peculiar relation to neurasthenia. The discrimination of these relations, and the influence of these groups, one upon the other, is of great interest and importance; the understanding of both is aided by their differentiation. But the discussion of this subject will have a more appropriate place in a special section devoted to the consideration of these disorders of ideation, in the next chapter.

In concluding this, the third chapter of these studies, it may be said that the endeavor has been, first, to pass in orderly review the elementary activities of the organic mechanism, in its normal condition, together with the commonly observed effects of their

normal action; and second, it being considered that it is certain disorders of the mechanism that constitute insanity, these have been studied in their genesis and initial forms as being varied manifestations of neurasthenia. The basis has now been laid for the presentation of additions to the symptom-group already formulated, or for its further modification otherwise, according to the changed conditions in the organic mechanism. These changed conditions are manifested as melancholia and mania, etc., in their ordinary forms, as disorders that are regarded as curable so long as they have not passed the stage of functional derangement.

### CLINICAL CASE.

## RECOVERY FROM MELANCHOLIA FOLLOWING PLEURISY.*

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Except the few instances which defy explanation and are recorded as the curiosities of psychiatric literature, recoveries from insanity due to intercurrent physical disease, fall naturally into two groups. In one group are the patients in whom restoration of mental health follows shock, presenting in this reaction an analogy with the physical disturbances in the sane due to strong emotion. Dr. Labruyère's case of recovery from melancholia of several years' duration, after a severe bodily injury, is an illustration. His patient was extensively wounded by machinery about the head, face, and arm, the bones of the cranium were fractured and the brain partially exposed. Mental improvement was coincident with the process of cicatrization.

Not less remarkable is the case reported by Dr. Allison, in which recovery twice followed separate fractures of both thighs, the first after a course of turbulent insanity of eleven years' duration.

The second group comprises recoveries attributed to altered conditions of the blood, or to the presence in the blood of toxic constituents. Analogous conditions in health are the artificial mental states produced by drugs, as the sudden insensibility of prussic acid, the languor of opium, the busy restlessness of belladonna, mania of alcohol or erethism of Indian hemp. The so-called metastatic insanities belong here, as well as the insanities cured by acute infectious and febrile diseases. The case of profound melancholia reported by Jacobi, in which improvement was simultaneous with abatement of tertian fever, typifies this group.§

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^{*}Quoted in the Journal of Psychological Medicine, Vol. II., page 169.

^{*}American Journal of Insanity, Vol. XLIII., page 104.

^{\$} Quoted by Griesinger: Mental Pathology, Amer. Ed., p. 165.

Variola, pneumonia, diphtheria, scarlatina, dysentery, typhoid and typhus have likewise exerted favorable influence upon insanity, and as a stimulant of mental energy, even in far advanced dementia, there has been noted no such effective agent as erysipelas.

Influenced by a case in his own practice in which recovery from acute mania occurred during the course of an attack of pleurisy, Dr. Willerding reviews the records of the favorable influence of pyrexial conditions upon mental disease, and refers to the fact that in some institutions for the insane an epidemic is hailed with satisfaction, and in others, inoculation has been actually practiced.*

F. E. F., a railroad conductor, was admitted to the Willard State Hospital, October 11, 1889, suffering with acute melancholia. His mother had been subject to puerperal melancholia; with this exception the family record was without blemish.

The history of patient's disease dated from the beginning of overwork in 1882, seven years before admission. At that time he purchased a new home, and devoted what should have been leisure to its improvement. To compensate the additional demand upon his strength he resorted to stimulants, and soon felt the disastrous effect in failing appetite, loss of sleep and severe headaches.

He persisted in excessive labor until the third summer following, when an attack of vertigo, occurring one night after he had retired, accentuated the earlier symptoms of failing health. and brought the first realization of their significance. A short vacation was without benefit, and symptoms of mental disturbance soon appeared. The patient became irritable, morose and seclusive. He continued his railway service, but appreciated an increasing weakness, which rendered difficult the performance of routine duties. During the spring before admission, he began to lose interest in his surroundings and in his customary forms of recreation. Of somewhat poetic temperament he had had a keen sense of the beauties of landscape. To this he now became indifferent; outlines gradually became indistinct, and there was finally an actual blurring of vision, with confusion of objects and distances. There then came a sense of oppression originating in the hallucination that space was "closing in"

^{*}Allgemeine Zeitschrift für Psychiatrie, 46. 5.

upon him; he felt that he "had no room." Periods of depression, rapidly increasing in frequency and intensity, developed, and growing dislike of the company of others became a condition of apprehension and suspicion. In August, two months before admission, patient began to dread insanity. He became rapidly worse, and yielded to the sense of enveloping gloom, and to the idea that he was hopelessly lost. Soon afterward he passed into a condition of stupor, in the beginning of which he made two frantic, ill-devised attempts at suicide, and the next day was admitted to the hospital.

On admission patient was confused, and after answering several questions about himself with some intelligence, lapsed into a silent, stupid condition, evidently unable to direct his thoughts to what was taking place. He removed his shoes in the office, saying that he had only one pair of woolen stockings, and that his feet were cold. He also said that he had not slept well, and once or twice put his hand to his head as if in pain. His physical condition was fair: weight 148 lbs., (seventy-five pounds less than in health;) pulse, weak; circulation, sluggish; extremities, cold.

During the following week the patient sat with head bowed, avoided others, and ate sparingly, though it was not necessary to resort to the tube. This state of stupor was interrupted by occasional short attacks of mild frenzy, during which in anguish he started from his seat, clutched at his clothing, complained that from an overpowering dread he could obtain no rest, and pleaded that he and everybody else be relieved of suffering. The stupor was then replaced by a delusional state, in which the prevailing idea was the loss of soul and the inability of the sufferer to atone for his wickedness. He wished to endure punishment for others in order that they might be happy. In November the headaches increased, and he was often prostrated by the severe pain. He spent the month of December at home and returned January 6th. He now relinquished his delusions and lapsed into simple melancholia. His depression was extreme, and was complicated by ill-omened choreiform movements of the limbs and head, which he tried in vain to control. Every method of diversion and every resource of hygienic and therapeutic treatment were employed without avail; patient became worse from day to day, and his case was finally considered

hopeless. There was progressive diminution of strength and flesh.

Early in the following April he complained of pain in left side, shortness of breath and excessive weakness. On the 20th of April physical examination was made with negative result. On the 26th of April he was obliged to remain in bed and was oppressed by dyspnæa and intercostal pain. He had a chill in the morning and in the afternoon his temperature arose to 103°. Physical examination revealed the presence of a fluid effusion in the left pleural cavity, and the diagnosis was confirmed by the hypodermic needle. Palliative measures carried the patient through the night, but the next morning he was seen to be in critical condition from the agony of the pleuritic pain and orthopnea. The operation of thoracentesis was successfully performed, and fifty-six fluid ounces of serum withdrawn. relief was only partial, as the inflammatory process with its lancinating pain continued. Patient pleaded for relief from the pain and from the oppressive constriction of his chest; he prayed for a "long breath." Three days later the operation was repeated and two pints of serum evacuated. Chloranodyne was prescribed at bedtime; following its adminstration patient secured a few hours of uninterrupted sleep and the next morning awoke refreshed "for the first time in seven years." The next night his sleep improved, there was a sudden relief from pain, and he awoke the following morning hopeful of recovery and smiling.

Mental improvement dated from this time, and after two weeks patient felt that his mind was "perfectly clear." He improved slowly in physical health, was discharged recovered from insanity, October 1, 1890, and has spent the following winter in a dry warm climate for relief of his lung. There has since been gradual improvement in strength and flesh, and no indication of return of mental alienation.

In the case above recorded the pyrexial state was prominent and may have influenced the operations of the brain. The intrinsic value of the clinical history, however, rests with the predominating element of shock, and the accompanying process of reasoning, during which there was transition from apparently hopeless melancholia to mental health. Severe pain and dyspnœa united in the production of thoracic anguish, suddenly and without warning awakened the sense of impending death, and directed

the whole energy of the system to the cry for relief—"a long breath." Unlike the simple mental reaction of change of purpose in the wavering suicide who jumps into the water and swims ashore, there was a conflict between mind and body and body conquered.

Into the ill-defined region between consciousness and reflex activity, which marks the ending of body and the beginning of mind, light is thrown by the phenomena of the above case. There was strong assertion of the vital principle of self-preservation, which, hitherto dormant in the perverted consciousness of the patient, was excited by the powerful reflex stimulus of physical suffering. Forcible and renewed expression of the sympathy between body and mind inaugurated the normal train of thought, and the patient passed on to recovery.

Thus the record reveals not only the nature of the shock which produced a change in the intellect, but what the action of the shock was, and why that action was followed by sanity.

#### ABSTRACTS AND EXTRACTS.

Pathology of General Paralysis.—Lacher describes [Neurolog. Centralblatt 1891, No. 3,] two cases of paralysis progressive with very acute course. Both began with preliminary symptoms of melancholic derangement, which lasted about half a year and passed in both cases into a state of anxiety associated with disturbance of consciousness, hallucinations and symptoms of of or irritation. This latter stage of the disease lasted about three weeks, and death from general exhaustion followed.

In case II, there were mydriasis and immobility of the right pupil, and epileptoid fits during the course of the disease. In case I, except symptoms of general motor irritation, no derangement of the motor sphere had been observed.

The brains of both patients presented a considerable loss of nerve fibres in the outer layers of the gyri recti and the anterior regions of all the frontal gyri, which loss of fibres diminished towards the anterior central gyri, where it was quite insignificant and was not at all perceptible behind them.

In regard to the extent of loss of fibres, the two cases differed but very little; however the changes of the blood-vessels were rather remarkable in case II, while in case I, in comparison with the considerable loss of nerve fibres, they were much less developed.

The author, from these two observations arrives at the conclusion that the starting point of the disease may be either the blood-vessels or the nervous substance (parenchyma) of the brain.

It will require further observations to prove whether the author is entirely right in his conclusions, because case I is not so strongly marked as to allow positive deductions.

Still the author's study is very interesting and valuable, chiefly because he had the opportunity of studying the anatomical changes at an early stage of the disease.

B. O.

ALCOHOL AND TEA.—At the meeting of the International Medical Congress at Berlin last summer, Dr. Kraepelin of Dorpat read a paper on the comparative psychic action of alcohol and tea. Former authors had held that they were identical, a rather remarkable conclusion. Kraepelin utilized for his experiments the measure of the time required for psychic processes, following somewhat the methods employed by Wundt. He found that alcohol in small doses stimulated the will but never the faculties of discernment and association. It only slightly impaired the judgment. Intelligence is somewhat stimulated. Tea has the opposite action. It has no influence over the will, but aids association and conception. Alcohol aids the act of reading but retards that of calculation. Tea does just the opposite. Alcohol facilitates motor transmission. Tea facilitates conception. The action of alcohol is unfavorable to the subjective sensations. Chronic alcoholism is accompanied with a motor retardation. The use of tea increases the power for intellectual labor. н. м. в.

TREATMENT OF THE INSANE IN BED.—At the same meeting Dr. Meisserread a paper on the above subject, of which the following is the abstract given in the Bull. de la Soc. de Méd. Ment. de Belgique. December 1890: L. Maier, Spatz and Schalz are the only authors who have called attention to this method of treatment. In a general way the classic treatises pass it by in silence; and nevertheless quiet in bed is a sovereign remedy in the treatment of all excited patients. Rest in bed really constitutes a very important therapeutic adjuvant; it saves the strength. All maniacs should occupy the horizontal position except young girls in whom the mania is accompanied with erotism. In cases where the patient receives proper care, especially as regards the hygiene of the skin, the horizontal decubitus offers very few dangers. Even paranoiacs should remain in bed at least eight days from their first entrance to the asylum; they thus come to apprehend the purpose of the establishment.

Repose in bed prevents violence, since the patients are unclothed and the position does not permit them to attack those around them. Isolation thus becomes needless. According to the author it is possible by quiet in bed to abort recent attacks.

H. M. B.

Autoscopic and Altruistic Hallucinations.—The above are the designations given by Féré for two forms of hallucinations that are rather rare and have not been very fully studied. His communication was made to the Soc. de Biologie the present year and reported in the Bulletin de la Soc. de Médecine Mentale de Belgique, No. 61. The first of these two consist of the cases in which the patient sees the image of himself. The author reports a case of this form in a physician suffering from diabetes and cancer of the bladder. Some days before his death he was in the corridor of a house where he had never been before, and was suddenly arrested by meeting his own image, as he at first thought, reflected in a mirror. Later he met the same appearance in his own house, generally at the close of the day.

The author notices another intellectual disorder in which a sensation, desire, or volition felt by the subject is attributed to another fictitious individual. He proposes for this the name of altruistic hallucination. Two examples of this form are given in which the patient always spoke of his own feelings and needs in his delirium as those of another person. The author holds this to be quite different from those cases in which the patients attribute their sensations to a foreign personality by reason of their denying their own existence.

H. M. B.

PIPERAZIDINE.—Ladenburg and Schreiner have been able to isolate the active principle of sperm, and obtain it chemically pure. It is possible to produce it by synthesis, and their memoir confirms the opinion that neither the extract of Ladenburg nor the sperrime of Schreiner is simple ethylenimine but rather piperazidine, (two ethylenimines.)

The therapeutic researches made upon this new product, place it among the stimulants of the nervous system.

Dr. Uspersky, of St. Petersburg, has employed with success M. Brown-

Sequard's extract in treatment of phthisis pulmonalis, but it is probable that piperazidine is the active principle of this extract, and it can hardly fail to play an important role in therapeutics.

We may quote finally the conclusions of Dr. Pereti, a well known alienist, derived from experiments with piperazidine:

- (1.) The researches on this new product should be carried still further.
- (2.) The subjective condition of the patient improves.
- (3.) The muscular power of the arm measured by the dynamometer is increased.
  - (4.) The sleep becomes better.
- (5.) The efficiency of the product is especially manifested in the case of psychosis from general debility in patients who present cerebral and bodily depression.

  H. M. B.

Physiology of the Restiform Body.—At the seance of the Society of Biology, Jane 27th, reported in the *Progrès Médical*, No. 27, M. Laborde gave an account of experiments made by him on a frog by puncturing the restiform body at the horizon of the sensory nucleus of the fifth pair of nerves. There resulted from this, besides the abolition of sensibility in the corresponding sides of the face and conjunctiva, a tendency to the draining of the body towards the injured side. In a patient who presented similar symptoms he had diagnosed a syphilitic tumor of the posterior cerebellar peduncle. The case was recovered under the treatment of mercury and the iodide.

H. M. B.

The Suggestability of Infants.—At a recent séance of the Soc. d' Hypnologie, reported in Gazette Méd. de Paris, July 25, M. Bérillon called attention to the suggestability of infants. Out of ten infants chosen at random, from all classes of society, eight could be put to sleep on the first or second séance. It was rather remarkable, however, that those who presented the most pronounced hereditary nervous tendencies, were the most difficult subjects. Perfectly healthy and vigorous children were as a rule very hypnotizable. And he concludes that two thirds of all children can be profoundly hypnotized on the first trial. He suggests the use of this agency to combat certain symptoms such as sleeplessness, nocturnal terrors, kleptomania, onanism and other vicious habits.

H. M. B.

TREPANNING FOR EPILEPSY—The following is the substance of some remarks by M. Lucas-Champonnière, with the discussion on the same in the Surgical Society, Paris, June 10, 1891, as reported in the *Progrès Médical*, No. 24.

The text of his remarks was a report made by M. Terrier at a preceding meeting. He had already published two similar observations and had notes of several others. He recalled the fact that cerebral surgery was initiated by Broca, who had operated in a similar case. It was incorrect, he claimed, to attribute too much importance to the distinction between simple or idiopathic

epilepsy and Jacksonian or symptomatic epilepsy. It is certainly an error to say that Jacksonian epilepsy is an excellent indication for operation, and that it affords a clear guide where we should apply the surgery. When one had made many operations in such cases it was plainly evident that epilepsy of the Jacksonian type is not as sure a guide as could be desired. He mentioned four cases which were followed by autopsy as supporting the statements as follows: 1. Typical attacks, and twenty-one the night preceding the operation, which relieved the patient, though no lesion was found in the region indicated by the symptoms. Sudden death thirteen hours later. The autopsy revealed a hemorrhagic patch under the right second frontal convolution, and the accidents of Jacksonian epilepsy were due to irritation from a distant point. 2. Motor disorders from which the patient suffered two years and a very distinct localization of the epileptic phenomena. Death and autopsy revealing an immense tumor at the base of the brain, which had very gradually produced these symptoms, 3. An analogous case due to tumor of the base of the skull. 4. In the last case M. Charcot had diagnosed Jacksonian epilepsy, but autopsy revealed only generalized meningo-encephalitis. He concluded, therefore, from those facts, that trephining is not always beneficial, and that we need not be surprised at finding no lesions even after the diagnosis of Jacksonian epilepsy. Horsley, moreover, has insisted on the dangers of trepanning in those cases where there were extensive lesions, larger tumors of the base, for instance, in which irritation is liable to cause sudden death. The seriousness of the operation is not due to trepanning alone, but to the already existing lesions. Nevertheless, operating may be justifiable to relieve the patient. In this case the trepanning should be quite extensive, so as to lay open a whole region of the brain, and the minute procedure of cranial cerebral topography is useless, or nearly so. Every one who has practiced trepanning on the living body is aware of this. Only the anatomists believe that it is of importance to discuss the greater or less chance of striking exactly this or that center by any given procedure. As for himself when he had to do with epileptics the relief from pressure played a very decided role, whether the disease was idiopathic or Jacksonian. The proof is that the patients themselves always speak of a marked relief, and the benefit of the operation is rather in the relief of the pain than in the permanent relief of the attacks themselves. Jacksonian epilepsy is a tolerably good guide when it is clearly limited to one region, takes on the form of monoplegia, and is accompanied with paralytic symptoms.

The re-implantation of the bone in epilepsy is only a matter of appearances. It has its indications in cerebral surgery, but it is objectionable since it prevents the relief of pressure sought for by the destruction of so much of the cranial walls. When suppuration does not take place the soft parts form an adequate protection.

In discussing M. Champonnière's communication M. Terrier agreed with him as to the necessity of making a large opening in the skull in epilepsy, but did not quite understand the part played by the relief of compression. The cranium is opened, the brain bulges out and not finding the lesions diagnosed, we conclude that it is the relief of compression that makes the patient feel better. It is difficult, however, to prove that it is the cause of the improve-

ment noted in these patients. He was not enthusiastic over the operation in these cases, and had seen trephining rapidly followed by death, due to persistent hemorrhages, shock, etc. In cases of cerebral hemorrhage, trephining is defensible under certain conditions, but that is another phase of the question. There is still another point of interest as regards the extirpation of the motor centres presumed to be involved. In case they are we may remove the lesion and hope for a cure, but if not we remove the part where there are presumed to be alterations, more or less comparable to those of essential epilepsy. Should they be removed in either case, this is a question which only experimentation on the human subject can decide. Ought we to fear that the cicatrix resulting from this ablation may constitute a foreign body itself, capable of producing the attacks? If that were so the extirpation of the motor centres would only make a vicious circle.

In reply M. Champonnière still held that pain is the first indication of trephining; after it comes paralysis. The operation itself is not the serious matter, but the old lesions which called for it; nevertheless there may be considerable hemorrhage. He still held that the relief of cerebral compression is very important; it may be brought about perhaps by the removal of a certain amount of cerebro-spinal fluid. He did not see the value of removing the motor centres for Jacksonian epilepsy, which is often due to distant irritation. By so doing moreover, we cause paralysis which may be permanent and troublesome.

H. M. B.

Strychnia in Chronic Alcoholism and in Dipsomania.—V. N. Ergolsky, Wratch. No. 10, 1891, (Abstr. in Journ. de Méd. de Paris.) has employed hypodermic injections of azotate of strychnia (in the dose of  $\frac{1}{16}$  to  $\frac{1}{22}$  grain,) in two cases of chronic alcoholism and dipsomania, and claims that with this treatment the desire to drink ceased after the first four to six injections, and the aversion continued for a long time, in some cases for a year or more. In only one case did it fail completely. After a relapse he renewed the treatment, which was again as effective as before.

This is equal in effects to those claimed for the much advertised Keeley cure and has the advantage of publicity.

H. M. B.

Browide Ethyline in Epilepsy.—J. Donath, Soc. de Méd. de Budapesth, 1891. (Abstract in Bulletin de la Soc. de Méd. Mentale de Belg., No 61.) In order to avoid the inconveniences of large doses of bromide the author had recourse to a salt in which the bromide acted, as it were, in a nascent state—the bromide ethyline. It is a brownish liquid, with an odor similar to chloroform, a sweetish taste, insoluble in water; it contains 90.9 per cent. of bromide; it mixes in all proportions with rectified alcohol, and forms with the fatty oils a clear and limpid solution. He employed the remedy in the form of an oily emulsion containing 5 per cent. of the bromide; and administered, to adults, thirty drops in a glass of sweetened water three times a day. Every third day he increased the dose ten drops until he had reached 70 drops at a dose. In children from eight to ten years of age he began with ten to twenty drops re-

peated twice a day; this dose corresponds to from a grain and a half to four or five of bromide of ethyline. In order to avoid irritating the stomach it is necessary to give the remedy in water or milk. When the stomach is very sensitive a grain and a half to three grains of thebaia may be added to the emulsion. It may also be given mixed with alcohol in equal parts in dose of five to ten or fifteen drops in milk, or in the form of capsules containing three drops of the bromide, of which one can take from four to eleven daily.

The therapeutic results were very satisfactory. The attacks became less frequent, shorter and lighter. In some patients also the after effects were less marked. In some cases moreover the bromide of ethyline was more efficacious than the potassium salts.

H. M. B.

#### BOOK REVIEWS.

A Plea for the Scientific Study of Insanity. Being the substance of addresses delivered before the Royal Academy of Medicine of Ireland, and the Medical Institution of Liverpool. By J. Batty Tuke, M. D., F. R. C. P. Edin., Medical Superintendent of the Naughton Hall Institution for the Cure and Care of the Insane. Edinburgh and London: Young J. Pentland, 1891. [Reprint from the British Medical Journal.]

In this address Dr. Tuke undertakes to investigate the reasons and the remedy for the isolated position which psychiatric medicine holds among the other branches of medical science and art. The reason, in this view, is that "The study of insanity has not been conducted on the same principles as those on which general medicine has been founded. Anatomy, physiology and pathology have been almost, if not entirely, ignored; and psychology has afforded, in association with clinical impressions, the institutes of so-called psychiatric medicine." Thus it has come about that "The department of medicine which undertakes the treatment of the insane is guided by psychology and clinical experience," and that "The general conception of insanity is on the same level as that of the 'dropsy' a century ago; and its varieties, mania, melancholia and dementia, are not one whit more pathologically definite than the anasarca, ascites and hydrothorax of that period."

That there is a good deal of truth in this, it would be useless to deny, but we incline to think that the author exaggerates the extent of the evil, and mistakes, in some respects, its causes. It is not the case that anatomy, physiology and pathology have been ignored to the extent implied in his remarks. Meynert, Westphal and Gudden, Luys, Bevan Lewis (the only worker in this line to whom he gives any credit.) and Spitzka are only the more prominent representatives of a large number of investigators who are laboring with more or less diligence and success in this field. The meagreness of the results thus far obtained is due, not so much to the lack of attention to the subject, as to its difficulties. If the changes in the brain in the different forms of insanity were as obvious and as constantly associated with definite symptoms as those in the liver, heart and kidneys in the various forms of dropsy, there would, we suspect, be as little reason to complain that they were overlooked. Such histological lesions as have been found have been very generally in advanced stages of disease, in which the possibility could not be excluded that they were the results of long-continued functional disturbances, to which, rather than to demonstrable anatomical changes, the origin of the mental derangement should be attributed, and the attempt to connect special lesions with definite forms of mental symptoms has met, thus far, with little success. Even in general paresis, which certainly has not been neglected on the anatomical side, no change nor combination of changes has been found that has not been met with in other entirely distinct forms of insanity.

So far as it is true that the number of investigators in this field is small, in comparison with other branches of medical science, it is, we think, largely

due to a condition of affairs which has grown out of what seems to us, on the whole, an enlightened regard for the best interests of the insane. Motives of economy, of regard for the good of the patients and the comfort and safety of others have determined the location of most hospitals for the insane separately from those intended for the treatment of other diseases, and at a distance from the centres of population and of medical instruction. Their officers have generally found their time pretty fully occupied by the care of their patients, and have lacked the stimulus afforded by daily contact with other scientific workers. Clinical observation comes in as a necessary part of their daily work, and does not, we think, deserve the slight estimation in which Dr. Tuke seems to hold it. Properly conducted, it is as truly scientific as any other way of studying disease, and, true though it may be that, in this field of medicine, it has been more cultivated than some other methods. we do not believe that it has received more attention than its importance demands, nor that its possibilities have been exhausted. Nor will a knowledge of the functions of the healthy brain come amiss to him whose business it is to minister to the mind diseased, even if we call it psychology.

The remedy for the present unfortunate state of affairs our author finds in taking etiology instead of semeiology as our starting point, and endeavoring to pass from it to what he considers "the highest platform of pathology morbid anatomy"-on which he believes we shall before long be able to base a classification of the insanities. It would take us too far to discuss the comparative merits of the etiological and clinical classifications of insanity. Both have their advantages and their drawbacks, and the attempts to make them coincide have not, thus far, been very successful. The importance of both etiology and pathological anatomy is unquestionable, but if the author's meaning is that a knowledge of morbid tissue-changes, taken by itself, is on a higher scientific plane than a knowledge of the causes or the effects of such changes, we must demur to the proposition. The highest point of knowledge in regard to a disease is reached when we know its cause or causes, its morbid anatomy and its symptoms in their mutual relations. To take an example from another department of medicine. The recovery of the trichina in the muscles of human beings, and swine did not put our knowledge of the morbid conditions produced by it on the highest platform. That was only reached when the manner and effects of its invasion of the system were discovered. When the whole natural history of a disease is known, the question which of the three factors-etiology, morbid anatomy and semeiology-shall be taken, as the basis of classification, becomes of very subordinate importance.

A considerable part of the address is taken up with an exposition of the author's views in regard to the mechanism by which excessive emotional excitement acts as a cause of mental derangement. From theoretical considerations and histological changes observed by him in four cases of death in acute insanity within two months of the date of development of the disease, he concludes that it acts through the agency of long-continued hyperamia, setting up a sub-inflammatory condition of the cortex, with lymph-stasis, accumulation of leucocytes and deposit of pigment in the sheaths of the vessels, and resulting degeneration of the nerve-elements. Whatever may be thought of the details of his theory, his opinion that the connection between

the emotion and the mental derangement is brought about by physical causes, just as truly as in toxic or traumatic cases, is one in which we heartily concur.

The address is concluded with some observations on treatment, which hardly seem relevant to the original subject. Dr. Tuke believes that the hyperæmia of the brain which he holds to be the fundamental condition in both mania and melancholia, requires for its successful treatment a degree of repose, both of mind and body, that is unattainable in the wards of most asylums for the insane as at present administered and constructed. Physical exercise should, he thinks, be allowed with great caution, if at all. "In the early stages of many forms of insanity it is absolutely baneful, and often aggravates symptoms. Most idiopathic cases, for instance, are for the first few weeks best treated in bed or on the sofa, careful massage taking the place of exercise,"

It may be questioned whether these views are not somewhat exaggerated. There are, doubtless, cases in which as strict a regimen as this is essential to recovery, and provision ought to be made for them in every hospital for the insane. It is, however, an undeniable fact, a great many subjects of mania and melancholia do recover, promptly and thoroughly, under other conditions, and it does not seem that it should be impossible for a physician of experience and good judgment to decide in what cases it may sefely be dispensed with.

On the subject of amusements, such as balls, parties and theatricals, Dr. Tuke holds pronounced views, contrary to those in vogue at present. Although he does not say that if carefully managed they are not good for the chronic insane, and admissible in some convalescent cases, he has no hesitation in saying that for the mass of the insane they are not good.

He concludes by advocating the establishment of small wards for acute cases in connection with general hospitals. "Such wards would not be nearly so difficult of management as the delirium tremens wards which at present exist; they would save hundreds yearly from being sent to asylums by procuring their early recovery; they would allow the student to become accustomed to the observation of a type of disease which afflicts three in every thousand of the community; they would afford the practitioner the knowledge of a condition which (the condition) he does not at present possess, but which the law presupposes he is in possession of, inasmuch as it confers on him considerable powers over the liberty of the subject; and they would serve gradually to draw the study of the various diseased conditions of which insanity is a symptom within the confines of general medicine. The professional and popular conception of their position would undergo great modification, and as time goes on such terms as mental diseases, psychiatry psychological medicine would fall into desuetude, and along with them the prejudice, superstition, and misconception which they help to maintain would cease to exist."

It is not necessary to adopt, in their full extent, the author's views as to the superiority of the treatment which the insane would receive in a general hospital to that provided in a special one, or to assume that a rose would gain an added perfume by giving it another name, in order to agree with him that it is exceedingly desirable that some opportunity should be provided for

students of medicine to acquaint themselves with forms of disease which they are so certain to meet in practice at precisely the stage at which most can be accomplished by judicious treatment.

With the main drift of the address we are in hearty agreement, notwithstanding our dissent from the author's views in regard to matters of detail. Whatever may be the reason, the unfortunate fact remains that our knowledge of the forms of disease most frequently met with in hospitals for the insane is extremely limited, and an extension of it is most desirable. Without drawing comparisons, favorable or otherwise, with what other people are doing, it is safe to say that as much is not accomplished as might be and ought to be in utilizing the clinical and pathological material accumulated in those institutions. We will, however, say, in conclusion, that we have never known very much to be accomplished, in such matters, by "pleas." The man who can point to something definite and tangible that he has achieved in the extension of knowledge will do tenfold more to induce others to go and do likewise, than he who contents himself with exhortation. We incline, accordingly, to think that the most valuable part of the address is that in which the author gives the results of his pathological investigations in cases of acute insanity.

The Pathology, Diagnosis and Treatment of Intra-cranial Growths. By Philip Coombs Knapp, A. M., M. D. (Harvard.) Fiske Prize Fund Dissertation, No. XLI.

Dr. Knapp's essay gives the result of a study of its subject, based upon forty cases, the majority of which occurred in his own practice. Patients were selected who were found at the autopsy to have had some form of cerebral growth, which may or may not have been the cause of death. By this method of selection a practical test is made of the present state of knowledge of this department of medicine, and the result is a "striking manifestation of the limitations of our ability to diagnosticate correctly intra-cranial growths"

The cases are made the nucleus of the essay, rather than illustrations of the principles involved, and are classified as follows: "Six presented no symptoms of cerebral disease; in five, the cerebral symptoms may well have been due to other co-existing cerebral affections; in thirteen there were symptoms of some cerebral trouble, not definite enough to permit a correct diagnosis; in eight there were symptoms definite enough to warrant the diagnosis, or at least a strong suspicion of an intra-cranial growth; and in eight cases it was possible to make a correct focal diagnosis, as well as a diagnosis of the existence of a growth."

Headache was noted in twenty-seven cases, and of sixteen cases of localized headache, in only six did the pain correspond to the part of the brain in which the growth was located. Vertigo occurred in twelve cases, vomiting in seventeen, and convulsions in ten. No distinction is made between optic neuritis and "choked disc." This phenomenon was found in two-thirds of the cases examined, but all were not examined. The four theories of the causation of "choked disc" are cited and discussed at some length, and the author concludes that the "irritation-pressure theory" is most plausible for the great

majority of cases. In the definition of this theory Leber is quoted: "The products of tissue metamorphosis of new growths, mingled with the inflammatory transudations, act as irritants, enter the sheath of the nerve with the cerebro-spinal fluid, reach the bulb, and give rise to neuritis and papillitis." That other cranial nerves than the second pair are not affected, and that "the irritants which are supposed to cause the neuritis are still unknown," are the objections to this hypothesis. Dr. Knapp states his conclusion conservatively, but with less precision than Gowers, who admits the "frequent association of dropsy of the sheath and optic neuritis," but finds that "of the relation of the one to the other little evidence has yet been adduced."

Psychical disturbance was noted in twenty-nine cases. The author believes that some mental change might be found by a competent observer in every case of brain tumor, although in many instances exceedingly difficult of detection. The symptoms in earlier stages are not unlike those of the prodromal period of general paralysis, and are apt to escape notice, as in the latter disease, in persons whose higher sensibilities have never been developed. The distinction is of little value to the alienist, who meets patients with brain tumor only in the stage of organic dementia, when the differential diagnosis from other cases of terminal insanity depends wholly upon gross motor or sensory disturbance. The classification of such symptoms is conveniently summarized as follows:

- "Pre-Frontal Region.—Marked mental impairment; symptoms of invasion (partial epilepsy, aphasia); disturbances of smell.
- "Central Region.—Partial epilepsy; monoplegia; partial anæsthesia; motor aphasia.
- "Posterior Parietal Region.—Word blindness; disturbance of muscular sense (?): homonymous hemianopsia.
  - "Occipital Region.—Homonymous hemianopsia; soul blindness.
- "Temporo-Sphenoidal Region.—Latent region. Word-deafness; disturbances of taste, smell, and hearing (?).
- "Corpus Callosum.—Latent region. Progressive hemiplegia, often bilateral, from invasion.
- "Optico-Striate Region.—Hemiplegia; contracture. In posterior part, hemianæsthesia, homonymous hemianopsia, post-paralytic chorea, athetosis.
  - "Crus Cerebri.—Crossed paralyses of oculo-motor nerve and limbs.
- "Corpora Quadrigemina.—Oculo-motor paralyses; reeling gait; blindness (?); deafness (?).
- "Pons and Medulla.—Crossed paralyses of face and limbs or tongue and limbs. Other cranial nerve lesions.
- "Cerebellum.—Marked cerebellar ataxia; marked vomiting; often a latent region.
- "Base, Anterior Fossa.—Mental impairment, disturbance of smell and sight, exophthalmos.
- "Base, Middle Fossa.—Disturbance of sight; oculo-motor disturbances; hemiplegia.
- "Base, Posterior Fossa.—Trigeminal neuralgia; neuro-paralytic oph-thalmia; paralyses of face and tongue; disturbance of hearing; crossed paralyses,

"Hypophysis. - Disturbances of vision; ocalo-motor disturbances."

Medicinal treatment is usually futile, and the practitioner only escapes an absolute "state of pessimism" by an occasional recovery following a course of specific treatment, in the administration of which he often has no better justification than that afforded by Hebra's dictum: "Jeder Mensch syphilitisch sein." Surgical treatment yields better results, its measure of usefulness having been recently extended by Horsley's operation for the relief of pressure in cases in which pressure symptoms are prominent. The same procedure has been attempted in a few cases of general paralysis, and has been followed by abatement of the distress following excessive cerebral effusion, though only for the short time preceding the fatal termination indicated by this condition.

Statistics of the recorded cases of trephining, in addition to a table of contents so admirably arranged that it may serve as a chart for diagnosis, increase the value of the essay as a compilation of useful facts. Its precision in statement recalls the translation of Strümpell's Text Book of Medicine, the honors of which are shared by Drs. Vickery and Knapp.

If there be no more prize funds to win, the reader of the present essay may be pardoned the selfish hope that ordinary incentives will suffice Dr. Knapp for continuance of his labors in the field of literary medicine.

J. M. M.

Atlas of Clinical Medicine. By Byrom Bramwell, M. D., F. R. C. P., Edin.; F. R. S. Edin.; Assistant Physician to the Elinburgh Royal Infirmary, etc., etc. Vol. I, Part I, Elinburgh: T. & A. Constable, at the University Press, 1891.

Dr. Byrom Bramwell's "Atlas of Clinical Medicine," the first part of which was recently issued from the Edinburgh University Press, furnishes one more token of the growing indebtedness of the profession to the able and indefatigable author of this magnum opus. His Atlas is one of the most ambitious medical enterprises ever conceived and undertaken by one individual.

It will consist of a series of colored, black and white, and photo-gravure plates,  $14\frac{1}{2} \times 10\frac{1}{2}$  inches, with detailed description of the plates and text. The plates are, for the most part, original, and copies of water-color paintings and photographs. The work is destined to be, in fact, An Illustrated Treatise on Chnical and Systematic Medicine. Each fasciculus will contain at least thirty-two folio pages of letter-press. It is expected that the complete Atlas will include at least ninety plates, or at least three yearly volumes.

Part I deals with myxœdema, sporadic cretinism and Friedreich's ataxia. These diseases are admirably illustrated, no fewer than three colored plates of great beauty and faithfulness, doing duty for myxœdema. The occasional concomitance of this trophic neurosis with insanity makes the subject one of special interest to the alienist. The reference to myxœdema in the Biennial Report of the Michigan Asylum for the Insane (1887), with the history of a case, will be remembered by many readers of this Journal, (April No., 1887).

The author adopts in his letter-press the distinctly clinical plan of instruction, first made popular by Charcot, giving occasionally questions and

answers as put and made by teacher and pupil. Nothing could be more impressive than this method.

The following sentences in the text give the reader an insight into Dr. Bramwell's methods of observation, at once suggesting an excuse for lack of attention to things spiritual in the eager seizure of the clinical opportunity at hand: "A few Sundays ago I recognized a case in the person of a gentleman who was sitting immediately in front of me in church, by the coarseness of the skin of the back of his neck, the dry, scanty, ragged character of the hair on the back of his head, and the dirty looking brown patches which were present on his scalp. The correctness of my opinion was amply confirmed when I obtained a full view of his face." The incident suggests how independent some men may become of the sermon in the pulpit when they can fortunately find another in the subdermal connective tissue in the pew in front.

This fasciculus also contains plates illustrating Lymphademona and Melancholia with Fear. Other plates illustrating forms of mental disease are ready or on the stone. In executing this part of his work, the author has had the benefit of the advice of Dr. Clouston, and has obtained material from the wards of Morningside Asylum. These plates will at once compel the admiration of alienists.

It may not be out of place to add, as not the least attractive feature of the work, that the price to the original subscribers for the yearly volume will be only (at least for Britain) about \$7.50.

Status Epilepticus. By G. R. Trowbridge, A. M., M. D., and C. M. Mayberry, A. M., M. D., Fellows of the American Academy of Medicine; Assistant Physicians State Hospital for the Insane, Danville, Pa.; Members of the American Medical Association, and Pennsylvania State Medical Society. Reprinted from the Journal of Nervous and Mental Disease, July, 1891.

This paper contains histories of twelve out of twenty cases of status epilepticus that have come under the observation of the authors. Five of the twelve proved fatal, and four of the twenty were examined post mortem Inequality of the hemispheres, decortication, hyperemia of the brain and meninges and serous effusion into the ventricles were found in all the cases; softening was found in one, and hemorrhage in two. No demonstrable lesion causing the status was found, and the authors consider it merely a climax of the neurosis. They obtained more favorable results from the hypodermic use of the hydrobromates of hyoscine and conine, in connection with morphine, than any other remedies.

Ninety Cases of Paretic Dementia. By G. R. Trowbridge, A. M., M. D., Fellow of the American Academy of Medicine; Assistant Physician State Hospital for the Insane, Danville, Pa.

Of 3,518 admissions to the Hospital, 90—77 males and 13 females—were cases of paretic dementia. Two were negroes, and twenty-one of foreign birth. As nearly one half of the insane of the State are foreigners—the proportion in that hospital is not stated—Americans seem to be rather in

excess. The origin of the disease is attributed to intemperance in twenty-three cases, to syphilis in seven, to syphilis and intemperance in two; overwork, business troubles and heredity are the principal remaining causes alleged. In the author's opinion, syphilis stands next to alcohol in this regard. The average age at the time of the attack was forty-one years and eight months, the oldest subject being sixty-three years of age, and the youngest—a female—twenty-one. The average duration of fifty-eight cases that died, two years eight and one-half months; the longest, ten years, of which seven were spent in the hospital.

A Case of Epilepsy with Double Consciousness. By the same author. Reprinted from the Medical News, February 21, 1891.

The patient, a German, aged fifty-two, is subject to convulsions in series of from three to six, at intervals of a month or six weeks. In his normal state, he is pleasant and industrious. The convulsions are severe, and after recovering from the first he is found to be irritable and sullen. These characteristics increase with each fit, and after they come to an end, he is very violent and abusive, and disposed to refuse food. This condition lasts from five to ten days, and the return to the normal state does not usually occupy more than twenty-four hours. When in his normal condition, he has no distinct recollection of what happens during the period of "second self," Treatment, directed to the prevention of the seizures has been unsuccessful.

The Insanity of Pubescence. By the same author. Reprinted from the Alienist and Neurologist, July, 1891.

The author thinks that the insanity of pubescence, although a distinct psychosis, is often confounded with other forms, through failure to recognize it as insanity in its earlier stages. Its characteristics he finds to be as follows:

- 1st. It is a chronic mental disorder.
- 2d. It is an hereditary psychosis.
- 3d. It is a periodic or recurrent insanity, and, also, as a rule, includes a moral perversion.

He gives histories of three cases which illustrate these points, but does not, to our mind, show satisfactory reasons for separating these cases from paroxysmal insanity occurring at other periods of life.

Disease of the Mid-brain Region, with Special Reference to Ophthalmoplegia, and a Note on Post-hemiplegic Ataxia. By B. Sachs, M. D., Professor of Mental and Nervous Diseases in the New York Polyclinic. From the American Journal of the Medical Sciences, March, 1891.

This paper gives histories of four cases, having the common symptom of more or less paralysis of ocular muscles. The first occurred in a child three years of age. There was complete paralysis of all the external ocular muscles, except the internal recti, which were capable of very slight movement. Nevertheless, there was distinct accommodation reflex, and slight reaction of the pupils to light. Vision was much impaired, and the patient staggered in walking, with a tendency to fall to the right. There was slight

left facial paresis, and the right hand was weaker than the left. Reflexes were exaggerated, and there was occipital headache. Diagnosis was made of tumor of the corpora quadrigemina, with general tubercular meningitis. At the autopsy, a tumor of the posterior corpora quadrigemina was found, occluding the aqueduct of sylvius. A solitary tubercle of the dura mater, near the right lateral sinus, produced occlusion of that vessel; several tubercles, surrounded by areas of softening, were found in the cerebellum, and there was tubercular meningitis, with great thickening of the piamater at the base of the brain, and distortion of both third and the right sixth nerves.

In the second case, occurring in a married woman, forty years of age, paresis of the external branches of the third nerves, with unimpaired pupillary reactions, gave rise, at first, to diagnosis of polio-encephalitis superior, but subsequent development of headache, cerebellar staggering and optic neuritis seemed to give conclusive evidence of tumor. Autopsy not obtained.

In the third case, the patient, a man, thirty-three years of age, gave a history of syphilis. The patient suffered, when first seen, from left ptosis and paralysis of the left abducens. The condition improved under antisyphilitic treatment, but during the treatment a very similar state of affairs developed in the right eye. In this case, the author considers a specific infiltration of the nerves involved the most probable explanation of the symptoms, and thinks that in such cases the morbid process may show a predilection for certain sets of fibres in a motor nerve, analogous to the predominance of motor or sensory disturbance in lesion of a mixed nerve.

The fourth case was that of a hemiplegic woman, fifty-seven years of age, with complete paralysis of all the muscles, external and internal, of the right eye, except the external rectus. Any attempt to use the paralyzed left hand set up most violent irregular movements in the extremity, continuing for some time. At the autopsy, the right crus cerebri was found softened in its entire thickness, and the right oculo-motor nerve was reduced to a thread. The author calls attention to the similarity of the motor disturbances to those often observed in infantile cerebral palsies,

He sums up with the following conclusions:

- "1. The slow onset of oculomotor symptoms associated with ataxia and vomiting, point to a neoplasm in the vicinity of the corpora quadrigemina.
- 2. The diagnosis of polio-encephalitis superior (Wernicke) should not be made unless tumor of the quadrigeminal region can be positively excluded.
- 3. Paralyses of one or more muscles, and not of all muscles supplied by the oculomotor nerve, do not necessarily imply a nuclear lesion. This is particularly true of syphilitic cases, in which affection of the nerve rootlets may give rise to symptoms exactly like those of nuclear disease.
- 4. Post-hemiplegic ataxic movements may result from lesion of the crus, and probably from lesion in any part of the motor tract."

Contributions to the Study of Infantile Cerebral Palsies. By the same author. Reprinted from the New York Medical Journal, May 2, 1891.

Dr. Sachs states that he has seen, during the past year, at least sixty-five new cases of this character, in addition to 140 cases on which a previous paper was based. He concludes that such cases are much more common than is usually supposed, and that they have often been mistaken for paralysis of spinal origin.

He gives, in tabular form, his views as to the lesions found in these cases, with their symptoms and accompanying conditions. The cases he divides into prenatal, including large cerebral defects and agenesis corticalis, birth palsies, caused usually by meningeal hamorrhage, more rarely by intra-cerebral hamorrhage, and acute acquired palsies, due to hamorrhage, thrombosis, embolism, chronic meningitis, hydrocephalus, (rare as the sole cause of palsy,) and perhaps primary encephalitis.

The paper is mainly devoted to an account of two cases in which autopsies were had. The first, a boy eight years of age, developed right hemiplegia, with transient aphasia, at the age of six and a half. In October, 1890, he suddenly fell, and was found to be completely paralyzed on the previously paretic side. Symptoms of cerebral tumor developed rapidly, and he died in eight weeks from the date of the attack. The brain was found to be hydrocephalic, the occipital lobes, especially, being very much thinned, and their convolutions and sulci obliterated. Two cysts were found, one in the left motor region, the other at the apex of the left temporo-sphenoidal lobe. A large tumor was found beneath the cyst in the motor region, and another in the right temporal lobe. The oid hemiplegia is attributed to the cyst in the left hemisphere, which is thought to have been of hæmorrhagic origin, and the accession of paralysis to the tumor in the same region. The hydrocephalus is not thought to have been responsible for any of the symptoms.

The other case was that of a child one year old, the subject of congenital spastic paraplegia. For the first six and a half months of life the child suffered from almost constant tonic and clonic spasms. At the autopsy the pia mater was found universally adherent over both hemispheres, and there was very marked symmetrical atrophy of the frontal halves of both hemispheres. The microscopical lesions found were indicative of chronic meningoencephalitis. In conclusion, Dr. Sachs discusses the propriety of surgical interference, and advocates resort to operation in fresh cases in which there is evidence of a large clot over the motor area of a child otherwise vigorous enough to endure the operation. He has little hope of benefit from surgical measures in old cases.

Hypnotism. By J. T. Eskridge, M. D. Reprinted from the New York Medical Journal for August 1, 1891.*

To those interested, especially in the therapeutic and medico-legal possibilities of hypnotism, this paper will be found to offer some useful suggestions. The author has apparently investigated the subject scientifically, and seems unbiased in his opinions.

After briefly considering the best methods of inducing hypnosis, he describes those who are hypnotizable, differentiates the hypnotic condition

^{*} The Presidential Address to the Colorado State Medical Society, 1891.

from that of simulated hypnosis, and considers at length the therapeutic value, dangers and medico-legal aspects of the subject.

The therapeutic value of hypnotism depends, as he says, upon the permanency of the mental impression made during hypnosis. So in many cases this impression must be many times repeated to occasion any lasting relief.

By suggestions during the stage of hypnosis, he states that he has been able to improve digestion, increase the appetite and relieve constipation; to promote sleep in the wakeful; to change slight despondency to hopefulness; and to relieve headache, nervousness and some cases of stammering. He was unsuccessful in hypnotizing the insane and also persons while suffering acute pain.

In his experience, even oft repeated hypnotization was unattended by danger, the method employed being that of the School of Nancy, with the precautions laid down by Moll.

The dangers from a medico-legal point of view are lessened by the presence at each séance of a third party. But whether the therapeutic value of hypnotism is greater than the dangers which cannot be prevented from its practice, he considers undetermined.

C. E. A.

New South Wales: Report for 1890 of the Inspector-General of the Insane-G. Norton Manning, M. D., Inspector-General.

This report comprises that of the Inspector-General himself, and separate reports by the medical superintendents of the different institutions for the insane. There are in the Colony five government hospitals, a reception house and two licensed houses. On the 31st of January, 1890, there were 3,102 insane patients on the official register. The increase during the year was the largest that has occurred in any one year, but the ratio of insane persons to the general population, which is 1 to 377, has not increased. During the year 556 new cases were admitted, and 55 were readmitted, and 257 patients were discharged recovered, so that the percentage of recoveries to the total number admitted was 42.06. The percentage of deaths was 6.52—calculated on the average number resident. There were 193 deaths during the year, and of these, 85 were caused by cerebral disease, 51 by thoracic diseases, 17 by abdominal diseases, and 31 by general debility and old age. There were three cases of suicide and three deaths by accident. Among the more important predisposing and exciting causes of insanity in the cases admitted, various moral causes appear in 95 cases, intemperance in 71, diseases of skull and brain in 29, privation and over-work in 25, old age in 25, and sunstroke in 10.

Leave of absence is allowed to patients for periods of variable length, and they may be extended to two or three years. This system has been in operation for several years, and is recommended by Dr. Manning as useful as a preliminary to final discharge in order to test the patient's self-control, and to save the trouble and expense of new commitments in recurrent cases. Another feature worthy of notice is the Reception House for the Insane at Darlinghurst. Patients are admitted to this institution either on certificate of lunacy or "under remand for short periods." During the past year 294

cases were readmitted under remand, and of these 172 were discharged sane, 115 were afterwards certified, 2 died, and 5 remained at the end of the year. Dr. Manning called attention to the fact that, although many of these cases were due to alcoholic excess, the institution is not used as a place in which the habitual drunkard may get over the effect of a debauch. New South Wales has not protected itself from the importation of insane people from foreign countries, and the need of such legislation is wisely and forcibly pointed out in this report. The existing hospitals are over-crowded and a new one is very much needed. A site has been secured, but the work of construction has not been begun, and Dr. Manning urges that there be no further delay.

The reports of the superintendents of the different hospitals are arranged as appendices to that of Dr. Manning. They show that considerable progress has been made in the year in most of the institutions in providing more varied employment and recreation for patients.

R. G. C.

The Fire Protection of Hospitals for the Insane. By L. H. PRINCE, M. D., Resident Physician "Bellevue Place," Batavia, Ill. Chicago: C. H. Blakely & Co., 1891.

The importance of adequate fire protection in hospitals for the insane cannot be overestimated; indeed, in this age of progress, neglect to provide ample apparatus for such protection can scarcely be regarded in any other light than as gross negligence on the part of the management. Within a comparatively short period of time several great hospital fires have occurred in this country where large loss of life resulted amongst the insane inmates. The citation of such catastrophes should be ample argument to secure the needed legislation to procure the means for organizing and maintaining a thorough system of apparatus and drill to guard against this danger.

Dr. Prince's book on this subject is timely and contains many valuable suggestions. The point that "the pecuniary loss is often greater at one fire than would have been the amount necessary for making the whole institution comparatively free from danger" is well taken, for we are firmly convinced that no greater mistake can be made than attempts at economy in this direction. The author discusses briefly modern methods of heating and lighting buildings and voices the consensus of general opinion in stating that electricity is "without doubt the safest and best system of any yet employed" for lighting. The dangers lurking in waste, deposits of oiled rags, ash barrels, etc., are pointed out and a great variety of fire extinguishing apparatus is described and illustrated. The author deprecates the use of standpipes in buildings, and offers cogent arguments in opposition to them, an important objection being on the score of reducing water pressure in the mains in case any of the stand-pipes become broken by falling walls or from other causes. The best protection against fire is to be found in a system of pumps and water mains, numerous hydrants with hose attachments, and throughout the buildings water buckets, hand grenades, and chemical extinguishers. The author has great faith in the Babcock chemical extinguisher. Experience with this apparatus on several occasions at Utica has been attended with the most gratifying results. Mention might also have been made of the Miller extinguisher, a new claimant for recognition. Various electric alarm systems are mentioned, but the "Gamewell Rapid System," as used at Kankakee, "seems to the writer to best meet the requirments of public institutions."

Dr. Prince rightly points out that "after an institution has been supplied with the necessary facilities for extinguishing fire and has also a reliable fire alarm system, it still cannot be considered as properly protected unless there be in addition some system of organization and drill, whereby the apparatus may, when needed, be handled intelligently." Dr. Prince was at one time connected with the Chicago Fire Insurance Patrol, and later was an assistant physician in the hospital at Kankakee, Ill., where he organized an excellent fire brigade with elaborate rules and regulations. His book bears the impress of practical experience and is worthy of careful perusal and study. No institution for the insane should be without a copy in its library.

C. G. W.

# LETTER FROM FRANCE.

#### PSYCHIATRICAL INSTRUCTION IN FRANCE.

Leaving aside for the present scientific matters, properly so-called, I propose to describe the actual condition of the instruction in mental medicine in France at the present day. It is not claimed that the organization of the instruction can yet be offered as a model, as there are still many deficiencies. Nevertheless, important progress has been made within the past few years which I think may be of interest to your readers.

Up to a very recent epoch the study of mental disease has been confined to a few, and we may almost say, privileged experts. These have devoted themselves to the study according as their tastes suggested, or as circumstances put in their power the facilities for so doing. The great majority of physicians remained complete strangers to this department. Why should this be? Certainly not because the study lacked interest any more than because that this branch of medical science is too undeveloped, or that the means of study were wanting. is that the study is full of interest, for all physicians have at least general notions in regard to insanity, its various manifestations and their management. As Dr. Charles G. Hill* has recently very aptly said in your journal, medical men are frequently called upon to pronounce upon the measures to be taken in regard to the insane. They ought to be competent to advise their admission when necessary to a public or a private asylum for treatment; they ought to know how to recognize insanity behind the similitude of reason with which it is often masked, to foresee its explosion and ward off the consequences, and finally they should be able under certain circumstances to enlighten justice in regard to the medico-legal questions of mental disease.

On the other hand, the development of mental medicine since the commencement of the century has been comparable to that of all other branches of the science. Its extended domain has been explored with care. The diseases which appertain to it have been attentively studied, and some of them are today so well known that their description offers very few lacune.

^{*}American Journal of Insanity, October 8, 1888. "A Plea for a Better Knowledge of Insanity by the General Practitioner."

Finally the opportunities of study have been, as they are yet, as abundant as they are varied, since the number of insane, instead of diminishing appears, rather to increase, and the insane collected together in asylums are presented for the observation and instruction of students, under conditions as favorable as the subjects of ordinary diseases in their proper hospitals. Instructors have never been wanting. They are found in the institutions under their charge, where they have produced memoirs which have made many of them celebrated, while at the same time they have aided very largely in the advance of science. Some of them in favorable surroundings have devoted themselves freely to public instruction, following in this the example of the earlier masters, Pinel and Esquirol. Without confining ourselves to those who have passed away, we may cite among them Baillarger, Foville, Falret, Voisin, Trelat, and many others. Nevertheless, excellent as have been the instructions of these distinguished men, they have been followed by only a small number of students.

The neglect into which the study of mental medicine has thus fallen may be attributed to two principal causes. One is that the asylums for the insane, where the clinical instruction, which alone is profitable, could be given, were not organized for such a purpose; that they are generally located in places too remote from medical centres. The other and the more important one is, that mental diseases do not form a very important part in the official courses of instruction of students in the schools of medicine. The students under the force of circumstances are not encouraged, after a fashion, to occupy themselves with subjects which are not obligatory, and in fact the majority give very little attention to this matter, or even ignore it completely. Having become physicians they remain in their ignorance.

Recognizing that this condition of things produced an enormous deficiency in medical instruction, the faculty of medicine of Paris has on two or three different occasions attempted to remedy it. They organ zed courses in this department under very eminent professors, such as Tardieu, Marcé and Lasègue. But these courses, in spite of their value, were only theoretical; they rendered only limited services, and their organization was only temporary.

At last there came a time when a more complete and efficacious reform was set in motion. In 1877 a decree was promulgated which created in the Faculty of Medicine adjunct clinical courses, amongst which figured instruction in mental medicine.

The application of this decree met in the beginning various difficulties, which, nevertheless, did not delay its practical carrying out, and it would be without interest to dilate upon them. What is of importance is that instruction in mental medicine was introduced at this time, in an official and effective manner, into the schemes of medical education.

In order to render the situation clear, and to show what has been done and what yet remains to be done, it is necessary to examine into the state of affairs in each of the medical faculties of France.

There are at present in our country seven schools of medicine. At the time when the decree was promulgated, in 1877, there were only five: those of Paris, Montpellier, Nancy, Lyons and Lille. Two others have since been created, those of Bordeaux and Toulon. This last has only existed a few months; it was started in May last, and its courses of instruction are not yet complete. A clinical course of mental diseases has been planned and will soon be organized, but is not yet in operation. The same state of things exists at Bordeaux; though the school is older, nothing has yet been done.

At Lille a supplementary course on mental diseases was carried on regularly for several years. It was in part theoretical and part clinical. This last part of the course has been given in the insane asylums of the Department du Nord, and the students were invited to meet there once a week. The physicians of these asylums, notably MM. Bouteille, Dubian and Lemoine, were themselves professors. Unfortunately the asylums are rather distant from Lille. The students not being compelled to go there attended them in very small numbers; so finally the course has been discontinued for two years past. It is sought, however, to renew the course, and under more practical conditions.

In the Faculty of Medicine at Nancy, instruction in mental disease was organized in 1879, when a clinical chair was created, which has thus far been filled by Dr. Langlois, physician in chief in charge of the asylum at Maréville, situated two kilometers from Nancy. Once a week those students who desire it are taken in carriages to the asylum. The instruction which is

given there is purely practical; they are presented to and made to examine the patient, on whom the professor afterwards lectures. There is no theoretical course. The students, as I have indicated, are not obliged to attend these clinics, nevertheless they do so in large numbers and very assiduously.

At Lyons, where the school was created in 1877, instruction in mental diseases was provided for from the beginning and on as large a scale as possible, under conditions similar to those already described and more complete. There are at the same time practical and theoretical courses by different professors. The practical instruction is given at the insane asylum of Bron (Blione), where there are two services, male and female, for clinical needs. Dr. Arthaud, physician and chief at the asylum, has been made titular professor, and gives two lectures a week. At the same time an agregé of the faculty, Dr. Carrier, gave in Lyons itself the theoretical lectures, also twice a week.

In 1883 the first titular clinical instructor died, and then the condition of things was changed. The course of the agregé was suppressed and has not been renewed. There has been since then but one professor, who gives clinics at Bron once a week and lectures twice at the medical school in the theoretical course. The professor is Dr. Pierret, who has quite a celebrity as a pathological anatomist. The asylum at Bron presents the same difficulties as those situated near Lille. It is rather distant. The means of communication are poor, and very few students attend the clinical course. Psychiatrical instruction, therefore, at Lyons can hardly be satisfactory.

At Montpellier the conditions are infinitely better. The asylum is situated almost in town and in proximity to the medical school, which facilitates matters very much. The clinical chair of medical diseases at Montpellier has existed since 1880, when it was assigned to Dr. Cavalier, physician and chief of the asylum and professor of general pathology in the medical school. In reality, however, the course had already existed for some years, since Dr. Cavalier, aside from his regular duties, had given gratuitously clinical lectures in the asylum three times a week. At present and since the death of Dr. Cavalier, the clinical professor of mental diseases is Dr. Mairet, distinguished for his important works on insanity. Three times a week he gives clinics at the asylum. The other days he lectures, or the

students are practiced in the examinations of the insane. The general visit to the asylum, which contains about six hundred patients, is made every day by a large number of highly interested students, who appear to be zealous in the study of the patients, and the clinic is evidently doing good service.

The organization of the course of mental diseases at the asylum of Montpellier includes some other elements which hardly belong to it properly, but which nevertheless contribute to its vitality. Under the skilled direction of M. Mairet, laboratories of chemical and physical biology, and also of pathological anatomy, have been established. These are open to the students, who may thus combine clinical facilities of the asylum with experimental researches, and thus develop extensively their instruction and add themselves valuable scientific results. The good results of this plan have already made themselves felt; very promising students have developed in these active and thoroughly scientific surroundings.

There remains only the school of Paris, where the means of instruction in mental medicine, without being better organized than those of Montpellier, are more important. The clinical chair of mental diseases was created in 1877, but it has been fairly in operation only since 1879. It is given in the Asylum Sainte Anne, which is in Paris itself, and where two pavilions, one containing one hundred and twenty men and the other sixty women, are devoted to its use. Professor Ball has been so far its only regular professor, but he is assisted by a chief of clinic, who is at present Dr. Rouillard. This latter has charge of all administrative questions. The professor has therefore only to occupy himself with matters of instruction.

The selection of the patients for the clinic is made under special and essentially favorable conditions. The chief of clinic has the privilege of selecting out of all the asylums in the Department of the Seine those which appear to him the most interesting. He can also return to the other asylums such patients as have become chronic or have lost their special interest. Thus the clinic of the professor is always supplied with patients that show points of interest, and with only one hundred and fifty beds he may have pass through his hands in the course of a year five or six hundred individuals. An organization of this kind is only possible in a city as populous as Paris, where the number of the insane mounts up into the thousands.

The instruction is given as follows:

Every Sunday throughout the year the professor gives in a special hall a lecture, which is preceded by a visit to all the patients in the clinical pavilions. Amongst these he chooses one or more who form the text of his lecture. This is always clinical; never theoretical. Once a week, on Tuesday, there takes place a conference which is directed by the chief of clinic. After the Sunday lecture and after the Tuesday conference, the chief of clinic presents the patients to the audience and examines the students, either by questions or by requiring their diagnoses. The Sunday lectures are attended by a number of students, sometimes by as many as a hundred and twenty. The Tuesday clinics are usually attended by about fifty. Besides these, some students come on other days to visit, and examine the patients with the chief of clinic, who very kindly places them at their disposal.

The theoretical course is given twice a week at the medical school by an agregé, Professor Dr. Ballet, who has an average of from sixty to eighty auditors.

Such is the present situation of official instruction in mental medicine in France. Before commenting on the subject, it is necessary to say a few words on the unofficial instruction.

This is to-day in nearly the same condition as it was before the inauguration of official instruction. It scarcely exists except in connection with the schools at Bordeaux and Paris. At Bordeaux, Professor Regis has received the authorization to give his course in the halls of the medical school, without, however, having any actual connection with it. The lectures which he gives although purely theoretical, have met with a success which gives good promise of the results which would follow a well organized official clinical course.

At Paris there are a number of unattached professors, men of undoubted merit, and many of whom have attained a high celebrity. They lecture either at the Salpétrière or the Sainte Anne, where the treatment of the insane of whom they have charge, permits them to give clinical courses. At the Salpétrière there are Doctors J. Falret, August Voisin, Joffroy and Felix Voisin. At Sainte Ann is Dr. Magnan, whose clinics are given twice a week, on Sunday and Wednesday, and are numerously attended. Dr. Magnan has for his clinic, which is perhaps

the richest in the world, all those patients that are arrested in Paris before they are distributed to the other asylums, and he has pass before him every year about five thousand acute cases in the most interesting stages of their diseases.

The inauguration of official instruction is an incontestable advance of which the good effects are beginning to make themselves felt. Those students, who in the former condition of things would have finished their studies like their predecessors, without any knowledge of mental disease, have now the means of supplying this deficiency. It is to be hoped that their number will increase who avail themselves of these opportunities, and that in the near future there will be numerous physicians properly instructed in these subjects.

Nevertheless it will not do to ignore the fact that the state of things is yet unsatisfactory and needs many reforms and improvements.

The first and perhaps the most important of these will be to have the study of mental diseases not only made practicable and facilitated, but be also compulsory. At present a knowledge of these diseases is not one of the subjects that is made essential to the candidate seeking his diploma as doctor of medicine.

Very rarely are questions bearing on mental medicine asked in the examinations, and this is certainly one of the reasons that so many persons neglect to make themselves informed about them.

But in order that knowledge of mental disease should become obligatory in the examinations, it is necessary that the students should be obliged in the course of their studies to attend regularly clinics on insanity. Three months might be sufficient as a minimum, and in this length of time, if properly directed, they might be able to obtain an elementary knowledge of insanity sufficient to meet the more urgent necessities of their medical practice.

One other improvement should precede even the above; that is, that the clinics of insanity should be arranged conveniently to the centre of study, in the immediate neighborhood of the schools. Consideration of the facts as they exist indicates this necessity. At Lyons and Lille the clinics are far from the medical schools and the students attend them in very small numbers. It is hardly possible that it can be otherwise, since going and coming so long a distance is expensive and takes up

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valuable time. At Nancy the asylum is nearer, but still too far and the attendance is small. Finally at Montpellier and Paris the clinics are located very conveniently for the students and they attend them in larger numbers.

The organization of the clinic of mental diseases at Paris is such that one might still desire improvement in some respects. One ought to consider indeed that the crowding of the insane in an ordinary asylum, does not furnish the most favorable field for imparting the primary and essential notions in regard to mental diseases. One meets under such circumstances too many chronic and incurable cases, in whom the typical manifestations of the disease are not easily found. What is necessary is the collection of the insane during the acute and primary periods of their ailment, somewhat analogous to the clinical service in a general hospital. It is not necessary that this collection should be numerous. Some thirty individuals, male and female, would be sufficient, taking for granted that they are changed sufficiently often.

Finally experience has shown that purely theoretical courses attain only incompletely the end which they propose. Clinical courses, therefore, should alone be established, since they alone give the requisite knowledge of insanity. "Fabricando fit faber;" it is by seeing patients that good physicians are made.

The public authorities have seriously given their attention to the realization of some of the improvements above indicated. Very recently in the seance of June 10th and 11th the Superior Council of Public Assistance adopted a resolution that there should be clinical instruction in mental diseases and the medico-legal relations of insanity in the state schools of medicine which do not already possess these courses; second, that this instruction should form part of the examination for the doctorate of medicine.

To sum up, I repeat that which I said in the beginning; that the instruction in mental diseases in France has not reached such a point of perfection that it can serve as a model, but that this may soon be realized. In any case the incontestable progress that has been made within the past twelve years and the manner in which this progress has been made, is perhaps more promising in certain respects than that which has been followed in countries where the organization appears at first more complete and better than our own.

Toulouse, June 14, 1891. VICTOR PARANT, M. D.

## NOTES AND COMMENTS.

THE CARE OF THE INSANE IN SCOTLAND.—That few countries on the whole have better provisions for the care and treatment of the insane than Scotland is evident from a perusal of the Thirty-third Annual Report of the General Board of Commissioners in Lunacy, which has just been published.

On the 1st of January of this year there were 12,595 insane in Scotland, being 298 in every 100,000 of the population, about 300 of the number being in the schools for imbeciles, or in the general prison. For this number of the insane there are nineteen royal and district asylums, with 7,116 patients; five private asylums, with 152; six parochial asylums, with 1,517; sixteen lunatic wards of poor houses, with 882; and a lunatic ward of the general prison; while 2,613 are maintained in private dwellings under the jurisdiction and control of the board of lunacy commissioners only, apart from any connection with public "establishments" except in the case of private patients who are not kept in a private dwelling "for profit" or not subjected to compulsory confinement, or have not had their property put in charge of a court. All the institutions except the private asylums receive "paupers," i. e., those supported by the parochial rates, or by the State; and in the "private dwellings" there were but 124 private patients, to 2,489 paupers who were thus "boarded out." Admission is by sheriff's order, by sanction of the board, by transfer, or voluntary. The number of these last for the preceding year was 90. These can be detained for only three days after notice of leaving, and the commissioners say that it has practically worked well, and commend this provision. The royal asylums, seven in number, are those founded by charitable benefactions before the lunacy act of 1857—two of these, the Royal at Glasgow and Murray's at Perth, have now confined themselves to private patients. The district asylums, twelve in number, are those created for both classes by the act of 1857.

The number of admissions for 1890 was: private 522, pauper 2,213. The recoveries were: private 199, pauper 975. The discharges of unrecovered patients were: private 124, pauper 418.

The death-rate was 8.4 per cent. on the number resident. During 1890, 105 patients were released on "statutory probation;" of that number 18 were finally discharged as recovered, 9 after probation expired remained under care of friends, 24 were returned to the asylum, 1 died and 53 were still out on probation.

On this interesting subject the commissioners say:

In the numbers above given the cases of patients discharged on trial for periods not exceeding twenty-eight days are not included. Such trials can be made without the sanction of the Board, and they are frequently made use of by some superintendents. The statutory discharge on probation is not granted by the Board for a period exceeding one year, and its special use is to permit of the conditional liberation of patients whose fitness for permanent discharge cannot be determined without actual trial for longer periods than twenty-eight days. It is frequently found that patients, who appear while in the asylum to have improved so much that they are fit for being provided for in private dwellings, become unsettled when the restraints of the asylum are removed. It is not, however, justifiable to retain permanently in the asylum all patients in whose cases a possibility of such unsettlement is thought to exist. The large majority of patients discharged on probation undergo no deterioration, and many are benefited by the change. By discharging patients on probation there is an opportunity for testing their fitness for permanent discharge, and at the same time for replacing them in the asylum without the expense attending a Sheriff's order, if they prove unfit for permanent discharge. We continue to be of opinion that in some establishments a more frequent application of the probationary discharge to patients whose fitness for residence in private dwellings may be uncertain would lead to a larger number of permanent discharges than takes place at present.

As we have too little space left to do justice to this valuable and instructive report, we shall content ourselves with calling attention to the matter of maintaining lunatics in private dwellings. Of course a considerable number of private patients live in their own families, not under jurisdiction of the Board, and some few in which the malady is not confirmed, are boarded temporarily; but the great majority both of private and pauper patients are under Board visitation and closely looked after, though not under asylum administration. The Scottish system in this respect is not a mere extension of asylum administration. The idea is to provide for those unrecovered or harmless cases who do not require asylum treatment.

On this subject the Commissioners say:

The experience of the Board has led them to the view that patients who do not require asylum treatment should be placed as nearly as their condition

will permit in the position which they would have occupied had they been of sound mind, sharing the interests and joining in the occupations of the sane; and for this purpose the Board think it necessary that they should be altogether outside of asylum administration, and that asylum authorities should have no control or responsibility in regard to them. There will always remain much in regard to both pauper and non-pauper patients, but especially in regard to pauper patients, which cannot be dealt with satisfactorily by asylum officials. Every pauper lunatic does not come, and ought not to come, within asylum administration. There must always be duties to be performed previous to the admission of a pauper lunatic to an asylum, which must be performed by the authorities of the locality in which the patient is found. It must always rest with these authorities, as in Scotland it rests, except in a few police cases. with the Parochial Boards and their officials, to determine, in the first instance. whether a pauper is insane, and if insane whether asylum treatment is necessarv. The responsibility for his care naturally rests upon them, they have to defray the cost of his maintenance, and they are best acquainted with the circumstances of his case. There should of course be an adequate guarantee that they fully recognize their responsibility, and this appears to be sufficiently furnished by their requiring to satisfy a supervising authority such as the Board, that the lunatic does not require asylum treatment, and by the necessity for obtaining the sanction of such an authority to the way in which he is

What is true of pauper lunatics who have never been in asylums is equally true of those who have been in asylums, but who have become fitted for home care. In considering questions connected with the disposal of patients fit for home care, no distinction can be drawn for any practical purpose between those who have been in institutions and those who have not; and if the care of those who have never been in institutions is found to be adequately secured by parochial authorities acting with the sanction of a central authority, no good reason can be given for instituting any different kind of supervision over those lunatics who have been in institutions, but who no longer require confinement in them.

For this purpose, the Board is authorized by statute to issue "special license" to keep in private houses not exceeding four patients, and there are now over 400 persons holding such licenses. In some cases patients are "boarded" with their own relations, but those coming from city residences, or homes with unfavorable surroundings, are directed by the Board to better places with strangers. This furnishes the Board with a ready means of relieving the asylums from "an undesirable accumulation of patients who have ceased to require the special arrangements of an asylum." Of the whole number thus placed out in private dwellings, no less than sixty-five per cent. were from the public establishments. The Board also sees to it that there shall not be too great aggregation in one neighborhood. The

parochial authorities also, under the Board, join in the work of supervision under this system. One striking result is the frequent removal of a pauper lunatic from the poor-roll, his relatives finding that they can undertake to support him after his removal from a public institution to private care.

As to the effects of this plan, Dr. Lawson says in his report:

"I am glad to be again able to report that, notwithstanding the great increase in the number of insane persons who have been placed or allowed to remain in private dwellings, the visitation which I have now completed has deepened the impression which I have formerly felt and expressed, that, with very few exceptions, the patients under domestic care have been adequately provided for and are considerately treated, and that the system which enables them to be carefully distributed amongst the general community is productive of benefit to them and of economy to the ratepayers. The great extension which is represented by the increased number of those visited has not been accompanied by any diminution in the standard of comfort or well-being prevalent in the homes of patients under domestic care. On the contrary, the guardians and dwellings which have been obtained in recent years have been, generally speaking, of a higher class and character than formerly. In fact, a tendency which exists amongst parochial officials to look for homes for pauper lunatics, amongst people of the genteel class, has required to be somewhat controlled, inasmuch as it has always been the experience of the Visiting Commissioners that a humble home, well kept and provided, was more likely than any other to afford abundance of plain food, and to necessitate the habitual association of the insane with the sane inmates of the dwelling. This habitual association of the insane with the sane inmates of the dwellings is properly regarded as of the greatest importance. Where the patients are kept apart as unfit to take their place as fully admitted members of the household, the chief part of the advantages to be obtained by liberation from the asylum are likely to be lost. There might indeed be produced in such circumstances a greater feeling of being outcast than could be felt in any asylum, and the desire that every lunatic should as far as possible occupy the position he would naturally have occupied had he been sane would be wholly frustrated."

The closeness of the family relations, which it is desirable should exist, and which often grow up between patient and guardian, is pleasantly illustrated in Dr. Lawson's remarks on the visitation of patients by their relatives:

"I have made such inquiries," he says, "as to the visitation of patients by their relatives as have satisfied me, that, notwithstanding the distances which in many cases divide them such visitation will compare favourably with that of patients resident in asylums. In many the frequency with which this duty is performed is striking and highly creditable. In many cases the patients are visited on public holidays, and in some instances they

are taken charge of for the day by parties of relatives and friends, to share in their jollity and good cheer. During a holiday visit a female teacher, the niece of a pauper patient, was so much struck with the beauty and comfort of her aunt's home that she has several times come to spend her summer vacation under the same roof and in the society of her relative. In many cases periodical visits are paid with the greatest regularity and are anticipated and recalled with pleasure both by patient and guardian. One advantage of these visits of relatives to patients in private dwellings is that they bring the guardians into close personal intercourse with those who are deeply interested in their patients, inasmuch as the visit generally occupies a considerable part of a day, and the guardian plays the part of hostess to visitors."

ALCOHOLISM IN FRANCE.—There are few subjects on which unscientific generalization is more frequently indulged than that of the relationship of alcoholic drink to disease. As a rule, the temperance advocate is not a man of great intellectual vigor, and his fanaticism is quite likely to be in inverse ratio to his knowledge of his subject. Witness a recent prohibitionist medical symposium in New York, at which the wildest kind of a talk was made to do duty as argument. Of a very different tone is an article in the Journ. des Connaiss. Médicales, No. 48, giving the main points of a lecture by Dr. Magnan on Alcoholism in France:

The history of alcoholism is of relatively recent date. France has notably been protected from the scourge. It is hardly forty years since cases of alcoholism were few outside of the great centres, and certain special populations. This is not the case to-day. In many regions the people of the country districts are as much affected as those of the cities. In provinces where the culture of the vine exists alcoholism has made its appearance since the oidium and the phylloxera have attacked the vine. While we admit with M. Coste that luxury, etc., have produced excesses in spirit drinking, as appears to be the case in certain departments where the ravages of the oidium have been least, and that in other regions misery has produced the same results, as has also been demonstrated in other countries, as in Switzerland, it is none the less true that the substitution of alcoholic drinks for wine, cider and beer has produced the most disastrous effects. To be noticed also as an important factor of alcoholism is the development of a new industry formerly unknown, that of bouilleurs de cru, who abuse their privilege by inundating the country with their toxic products.

In this state of things the alarm has been first given by the savants; thence the public and the legislature have taken it up in their turn. There is besides the moral and economic side, a fiscal question. We have therefore raised the duties on alcohol and absinthe, and diminished, at least in Paris, those on wine, and in 1873 a law was passed against drunkenness. The current of opinion seems to be expressed by the economic formula of M. Guyot; to make

the hygienic drinks free and make alcohol pay their tax. It would be a great step if we could suppress the privileges of the bouilleurs de cru, but for political reasons it is doubtful whether this could be actually accomplished.

In order to show the urgency of the fiscal measures it is sufficient to notice the diagrams in the report of M. Claude (des Vosges). The curves represent the production of the different alcohols from 1840 down to the present day. We see that in 1840, when the wine culture was in the highest prosperity, there was distilled in France 800,000 hectolitres of alcohol from fruits, 40,000 hectolitres from molasses, 35,000 from grain, and 20,000 hectolitres from beets. Progressively since that time the production of alcohol from fruits has diminished, and that of the so-called higher alcohols has increased: thus in 1885 the figures are reversed so that the production of alcohol from raisins fell to 25,000, while that of the higher alcohols rose to 1,800,000 hectolitres. In a toxic point of view one unit of ethylic alcohol corresponds to one-fifth or one-sixth of amylic, methylic and butylic alcohols. Hence we see while the consumption of alcohol has increased very greatly the products consumed are much more hurtful, and we need not be astonished at the rapid increase of alcoholism.

The examination of charts annexed to the report of M. Claude is very instructive. They give the geographical distribution of the consumption of alcohol (according to the excess statistics); the tints are the darker as the consumption is the greater. The three charts indicate the average consumption of alcohol per capita in each department in 1873, 1881 and 1885, and show the progress in this respect during the period of thirteen years.

Comparing them we see that in the latest one the tints are darker everywhere, and that the average consumption of alcohol for the whole country has increased at least one litre per capita. A red line which surrounds the regions where the consumption is above three litres per capita, goes from St. Malo to Montmedy, then is notably lowered as it connects Nantes with Besançon; in descending below Côte d'Or, we find it surrounding la Gironde, le Rhone, &c. If now we compare these charts with those of Lunier showing the distribution according to departments of alcoholic insanity, in relation to other mental diseases, we find a striking agreement between them; they might be put one above the other, so to speak. If we do not find the proportion of alcoholies to correspond exactly with the official consumption of alcohol we must keep in mind the illicit and contraband production, very great in some regions, such as the frontier, the Vosges for example, where the proportion of alcoholics has become enormous. M. Luzet, the great distiller, estimates the quantity of alcohol illicitly introduced at 1,072,000 hectolitres, while other authorities give it as over 2,000,000.

Finally, when we remember that there are more than 500,000 bouilleurs de cru in France whose products are not subjected to any serious control, and if we take note that there are vine growers without vines and without either apples or pears who nevertheless manufacture alcohol, we shall be able to take account of the value of their products in the enormous amount of alcohol consumed.

M. Rochard, however, after viewing the moral and hygienic side of the question, calls attention to the enormous expense of alcoholism to France.

Summing up the price of the alcohol, the days' labor lost, the totals of the fraud, the expense of the care of drunkards, according to the figures, which appear to be within the truth, the expense exceeds a milliard and a half.

But what are the destinations of all these alcohols? We meet them on our tables, not only under the forms of brandy, cognac, rum, but also in the form of wine. Wines are manufactured to-day into which there enters not a drop of grape juice. The process of vintage that had formerly some raison d'être in adding one or two degrees of alcohol in the weaker products is undoubtedly the first step in this new industry. This practice, allowable within certain limits, has to-day become an abuse that cannot be too severely denounced. By mixing the foreign wines from Italy and Spain with the alcohols of Germany before introducing them into France, the quantity is increased four fold. Bouquet, color and quality, are added with the aid of the chemist.

The author gives statistics of the effect of alcohol on insanity in the department of the Seine, going back a number of years, which show a very decided increase up to the present time. The latest figures, from 1887 to 1890 furnished by M. Magnan are the most complete, and include besides the cases of acute and chronic alcoholism, cases of insanity in which intemperance was the exciting cause. In 1887 the cases of alcoholism amounted to 24.84 per cent., and those of insanity directly due to alcohol as the exciting cause to 13.13 per cent., which makes a total of over 37 per cent. of all cases. In 1888 the ratio was 35.38 for males, 12.33 for females. In 1889 it was 33.07 in males and 11.95 in females. Alcohol was by far the largest single cause of insanity.

INSANE CRIMINALS IN BELGIUM.—There has recently been established in Belgium, by royal decree, under the Department of Justice, a service of mental medicine in connection with the prisons. The Report of the Minister of Justice to the King calls attention to the large number of prisoners who, while in confinement, show symptoms, real or feigned, of insanity. Good discipline demands the punishment of a feigner and humanity that the insane convict shall be treated in an asylum. Thus the first step has been taken in Belgium towards the establishment of special asylums for insane criminals. The prisons of the Kingdom have been set off into three districts for the purposes of this new service, to each of which an experienced alienist has been assigned. The first district will have the expert services of Dr. Jules Morel of the Hospice Guislain, Ghent, who, it is safe to surmise, has doubtless much to do with this enlightened policy of the Department of Justice. The second and third districts are in charge of Dr. Masoin, professor at the University of Louvain, and Dr. Sema, medical superintendent of the asylum at Mons.

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A NEW PRIVATE HOSPITAL IN MICHIGAN.—The problem of furnishing adequate accommodations for the well to do insane of Michigan has been satisfactorily solved by the erection and equipment of "Oak Grove," at the flourishing inland city of Flint. The plates and floor plans presented with the "Announcement" show the buildings to be well adapted to the objects of the institution. They comprise four brick structures, a centre, rear centre and two wings for patients, all fronting in a southerly direction and connected by corridors in the form of a semi-circle. The hospital is incorporated, and under the control of a Board of Directors. In the choice of a medical director wisdom has been shown in the appointment of Dr. George C. Palmer, for many years superintendent of the Michigan Asylum for the Insane at Kalamazoo. The present capacity of the hospital is seventy-

NOTES AND COMMENTS.

DEATH OF DR. S. S. SCHULTZ .- The news of the death of Dr. Schultz, Superintendent of the State Hospital for Insane at Danville, Pa., will come with a shock to his brethern in the speciality. He died September 27th, of—as stated in a newspaper account—"heart failure," in the sixty-first year of his age.

Dr. Schultz was born in Berks County, July 5, 1831, and was educated in his native county until the age of 14, when he attended school at Washington Hall, going thence to the Academy at Allentown, (now Muhlenburg College,) where he remained one year. He then entered Princeton College, at which he graduated in 1852, whereupon he began the study of medicine with Dr. Daniel S. Detweiler, of Montgomery County. After a careful preparation he entered the University of Pennsylvania, graduating as doctor of medicine in 1856.

After leaving the university he practiced in Allentown until he was appointed assistant physician at the Harrisburg State Hospital.

In 1861 he made a tour abroad, spending one year in studying the methods in practice in the hospitals and public institutions of Germany, England, and France. On the outbreak of the civil war he hastened home and entered the army, serving as surgeon of Pennsylvania Volunteers and surgeon of United States Volunteers. He served with the Seventy-fifth and Twenty-third Regiments Pennsylvania Volunteers and as executive officer and surgeon in charge of general hospitals at Harrisburg, Pa., Covington, Ky., Madison, Ind., and Columbus, Ohio.

Here he resigned at the close of the war in 1865.

Returning to Harrisburg he was in active practice until 1868, when he was invited by the commissioners to assume the superintendency of the Danville Hospital. He remained in that position until his death, a period of nearly twenty-three years. All who knew Dr. Schultz will bear testimony to his fidelity, to his professional and official worth, to his honesty of purpose and to the purity of his life and character.

THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.— The second triennial meeting of this body, held in Washington, during the last week in September, was a success, so far as the numbers in attendance and the quality of the papers read are concerned. The meeting of the Neurological Association, in particular, was generally admitted to have been the most successful in the history of that organization. Although it cannot be said that any epoch-making discoveries were announced, the quality both of the papers read and of the discussions, which were, in many cases, of even greater interest, was of a high order, and, notwithstanding that every effort was made to secure a rapid dispatch of business, a considerable number of the papers announced in the programme had to be read by title at the close of the meeting. Evidence was not wanting that the hostility manifested in the early days of the association toward those neurologists whose practice was in institutions for the insane is a thing of the past, but it cannot be said that there was very much disposition shown to trespass upon what the formerly proscribed class may, on their part, have been too much disposed to consider their exclusive domain. Two interesting cases of insanity were reported, but both were considered exclusively from the clinical point of view. Evidently there is still opportunity enough for ambitious alienists to win distinction.

Very unfortunately for the comfort of those in attendance, it happened that some of the hottest weather of the season occurred during the session of the Congress. Whether owing to this, to the water, or to some other circumstance—a question

on which doctors disagreed—gastro-intestinal disorders were almost epidemic among the members, and, in view of a somewhat similar experience at the previous meeting of the Congress, a pretty strong feeling was shown in many quarters in favor of the choice of some other place for its next meeting.

It was perhaps owing to the circumstances above alluded to that the general meetings of the Congress were not, in all cases, so largely attended as they deserved to be from the interest of their proceedings. Very many found attendance on the meetings of their special societies as much as they could well endure, under the prevailing conditions.

The scientific results of such an assemblage are, of course, mainly comprised in the work of the various constituent societies, and to estimate them would require a review of the entire proceedings. The good accomplished does not come so much from the new facts announced, which would, mainly, be brought out in some other way, as in the stimulus arising from association of those of similar tastes and pursuits, and from the spectacle of such a body of representative men, drawn together not for place and power, not for social enjoyment, but for mutual help in imparting and receiving knowledge. Whatever else may be true of the Congress, it may be said of it that it was, throughout, scientific in tone and spirit.

Membership in the American Medical Association.—We are requested to state that membership in the American Medical Association is obtainable, at any time, by a member of any State or local Medical Society which is entitled to send delegates to the Association. All that is necessary is for the applicant to write to the Treasurer of the Association, Dr. Richard J. Dunglison, Lock Box 1,274, Philadelphia, Pa., sending him a certificate or statement that he is in good standing in his own Society, signed by the President and Secretary of said Society, with five dollars for annual dues. Attendance as a delegate at an annual meeting of the Association is not necessary in order to obtain membership. On receipt of the above amount the weekly Journal of the Association will be forwarded regularly.

#### OBITUARY.

## JESSE PARKER BANCROFT.*

Dr. Jesse Parker Bancroft, for twenty-five years the superintendent of the New Hampshire Asylum for the Insane, and for thirty years its treasurer, died at his home in Concord, N. H., April 30th, of uræmia. His illness dated back to October, 1889, when he was somewhat suddenly attacked with serious illness while presiding at a meeting of the N. E. Pathological Society. From the sickness he sufficiently regained his strength to enable him to be about and maintain an active interest in affairs until his final illness.

Dr. Bancroft, son of Jonathan and Betsey (Parker) Bancroft, was born in Gardner, Mass., April 17, 1815. He fitted for college at Phillips Academy, Andover, Mass., and entered Dartmouth College in 1837, graduating from that institution in 1841. He studied medicine with the late Prof. E. R. Peaslee, of New York, serving as his demonstrator of anatomy at the Brunswick Medical College, and graduated from the Darmouth Medical School in 1844. For a year he taught school in the Pinkerton Academy at Derry, N. H., and then, in 1845, commenced the practice of medicine in St. Johnsbury, Vt., where he remained for twelve years, developing a large general and consultation practice.

In 1857, upon the resignation of Dr. John E. Tyler, the trustees of the New Hampshire Asylum for the Insane called Dr. Bancroft to the position of superintendent and treasurer of that institution. Against the urgent entreaties of his patients in St. Johnsbury, and after much deliberation, he finally decided to accept the position, and entered upon his new work July 15, 1857.

Dr. Bancroft brought into his new field of labor the same earnest enthusiasm that characterized his work in general practice. At that early day there were many obstacles to the successful treatment of insanity: First, the hospital construction itself was contracted and meagre, presenting serious therapeutic and sanitary defects. With a building imperfectly lighted, warmed and

^{*.} For portrait see frontispiece.

ventilated, there were few facilities for the proper classification of the different varieties of insane patients. But, perhaps, the most grievous barrier to the successful treatment and care of the insane at that time was the utter lack of interest and indifference of the public at large as to the real character of insanity, and an ignorance as to the proper moral, hygienic and therapeutic requirements of the disease itself. Particularly was this lamentable ignorance prevalent in New Hampshire. Not only was there lack of interest, but there was much decided opposition to any expenditure of the public funds for the amelioration of the unfortunate insane.

To the somewhat difficult problem of remodeling the old and imperfectly constructed asylum, of adapting the old structure to the demands of the disease and the individual wants of the patients with whom he was confronted, Dr. Bancroft bent himself with great earnestness. Old walls were torn down, innumerable ventilation flues constructed where none existed before, bay windows thrown out, sunlight admitted into dark corners, and warm, pure air supplied to those parts most needing it, so that finally the old asylum became practically a new one as far as its architectural limitations would admit. To the still greater task of enlightening the general public, of leading them up gradually to a proper understanding of the subject, Dr. Bancroft also most earnestly applied himself. In written articles and letters, in conversation with the most intelligent members of legislative committees, and other persons throughout the State, he sought to diffuse a clearer understanding as to the needs of the insane and the true character of their disease. Particularly did he labor with the relatives of patients visiting the asylum, to dispossess them of their prejudices. encouraged their frequent visits, and sought to impress upon their minds the fact that insanity was disease to be intelligently treated like any other. His labors were not without avail. Slowly the people throughout the State became aware that there were insane within their borders, that they needed care and treatment, and finally as a result, a more liberal policy toward the insane, and particularly toward the New Hampshire Asylum as the only public institution in the State for the care of insanity, began to declare itself.

During the last few years of his life Dr. Bancroft took great

interest in the subject of State supervision of the insane, and it was through his instrumentality that in 1887 the first State Board of Lunacy was established in New Hampshire by the legislature. At the same time this State Board was provided with power to transfer any suitable case from the county almshouses to the State hospital for remedial treatment. This was a great step in advance for New Hampshire, and fairly marks the beginning of a new era in the care and treatment of insanity in that State.

Dr. Bancroft was a progressive man, and though cautious in all that he did, still he was not so conservative as to lose sight of whatever was really meritorious in the progress of the day. He was among the first to recognize the importance of the so-called individualized treatment of insanity. The failure of the old style of asylum architecture to meet the growing recognition of the individual in the treatment of insanity, commanded his attention, and was recognized by him in the many alterations and additions that he instituted in the New Hampshire Asylum—notably in the Bancroft Building, devoted to the care of convalescent female patients. An article written by him and entitled "The Bearing of Hospital Adjustments Upon the Efficiency of Remedial and Meliorating Treatment in Mental Disease," and which appeared in the AMERICAN JOURNAL OF INSANITY, Vol. 45, p. 374, embodied his ideas upon the most important subject of hospital construction in relation to the varying phases of mental disease.

Dr. Bancroft's long and useful life was practically identified with the history of the care and treatment of insanity in New Hampshire. One of the most striking characteristics of his professional life was the tender regard and warm affection in which he was held by innumerable patients. Quiet, just and always sympathetic, he won, wherever it was possible, the hearts of his patients. These same qualities endeared him to his friends and relatives, and to them his death brings an irreparable loss.

# OFFICIAL NOTICES.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

Present—Carlos F. MacDonald, M. D., President, Goodwin Brown, Henry A. Reeves.

A conference called by the State Commission in Lunacy between itself and trustees, managers and superintendents of State Hospitals was held at the Gilsey House in the city of New York, Tuesday, July 14th, 1891.

There were present Carlos F. MacDonald, M. D., Goodwin Brown and Henry A. Reeves, of the Commission, and the following representatives of State Hospitals:

Binghamton State Hospital, Trustee O'Connor and Superintendent Armstrong. Buffalo State Hospital, Manager Curtiss and Superintendent Andrews. Middletown Homeopathic State Hospital, Trustees Burt, Van Amee, Slote, Lynde, Graham, Stivers and Devoe and Superintendent Talcott. St. Lawrence State Hospital, Manager Weaver and Superintendent Wise. Rochester State Hospital, Superintendent Howard. Willard State Hospital, Trustee Hammond and Superintendent Pilgrim. Utica State Hospital, Manager Dunham and Superintendent Blumer. Hudson River State Hospital; (Superintendent Cleaveland appeared and asked to be excused from attendance on account of ill health.)

The meeting was called to order at 11 A. M. by Commissioner MacDonald.
On motion of Commissioner Brown, Mr O'Connor of the Binghamton State
Hospital was made chairman of the meeting.

At the request of the chair Commissioner MacDonald stated that the conference had been called to consider the following subjects:

- 1. The adoption of a uniform system of rules and regulations for the internal government of State Hospitals.
- 2. An increase in the rate of compensation paid to attendants, especially in that paid to female attendants, with a view to have their wages approximate more nearly the rate paid male attendants; also to consider the ratio of attendants to patients.
- 3. The provision of light industrial occupation for such of the inmates of State Hospitals as are able and willing to work, in order to increase their chances of recovery.
  - 4. The admission of private or paying patients to State Hospitals.

After a full discussion of the necessity of the establishment of uniform rules and regulations for the conduct of State Hospitals, Commissioner MacDonald moved that the matter be referred to a committee to consist of one representative of each board of managers or trustees of the State Hospitals, such committee to be appointed by the chair, and that the committee be instructed to prepare a set of rules and regulations, which shall embody the best

features of existing rules and regulations of the several State Hospitals and to submit the same at a meeting of the commissioners, managers and superintendents to be held at Binghamton, in October next.

The motion was seconded and adopted unamimously.

The chair announced as such committee the following gentlemen and stated that the committee would elect its own chairman.

Messrs. Curtiss, of the Buffalo State Hospital; Rogers, of the Binghamton State Hospital; Burt, of the Middletown State Hospital; Weaver of the St. Lawrence State Hospital; Raines, of the Rochester State Hospital; Hadley, of the Willard State Hospital; McClelland, of the Hudson River State Hospital; Dunham, of the Utica State Hospital.

The next subject discussed was the compensation paid at State Hospitals to attendants, and the ratio of attendants to patients.

After a full discussion of the whole matter, Commissioner Brown offered the following resolution:

Resolved, That a committee of five be appointed by the chair to consider the subject of the compensation of attendants and the ratio of attendants to patients in State Hospitals, and that such committee report at a meeting of the commissioners, managers and superintendents to be held at Binghamton, in October next.

The resolution was duly seconded and adopted unanimously.

The chair announced the following gentlemen as members of the committee:

Messrs. Van Amee, of the Middletown State Hospital; Hammond of the Willard State Hospital; Doctors Andrews, of the Buffalo State Hospital; Wise, of the St. Lawrence State Hospital; and Blumer, of the Utica State Hospital.

Discussion ensued with reference to the recommendation of the Commission, as to the provision of light industrial occupation for the insane in State Hospitals, in order to increase their chances of recovery, but no action was taken with regard to the matter.

Commissioner MacDonald called up the next question for consideration, namely, the admission of private or paying patients to State Hospitals, and offered the following resolution:

Resolved, That it is the sense of this meeting that the State Hospitals should be permitted to receive private patients from any part of the State without restriction, the rate not to exceed ten dollars per week.

A free discussion of the matter ensued. Finally on motion a vote was taken on the resolution, each hospital being restricted to one vote, with the following result:

Ayes—Binghamton State Hospital; Buffalo State Hospital; St. Lawrence State Hospital; Rochester State Hospital; Utica State Hospital; Willard State Hospital.

The Middletown State Hospital declined to vote.

The Hudson River State Hospital was not represented, but the superintendent and one of the managers of that institution subsequently informed the Commission that they were heartily in favor of the proposition.

On motion, the meeting then adjourned to meet at Binghamton in October next.

It has been suggested that it might be expedient and well for the two committees to meet at Willard State Hospital, on some day in October, for the purpose of settling and preparing their several reports—such day to be fixed by agreement between their respective chairmen or members.

T. E. McGARR, Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunacy held at the Capitol, in the City of Albany, on the twenty-fourth day of June, 1891.

Present—Carlos F. MacDonald, M. D., President,
Goodwin Brown,
Henry A. Reeves,

Commissioners.

### ORDERED:

That the following forms of books and records prepared under the direction of the Commission for the use of State Hospitals and other institutions for the care, custody or treatment of the insane, be and the same are hereby adopted, to take effect October 1, 1891, unless otherwise provided:

- No. I. Case Book. Size of page  $8\frac{1}{2}$  inches; index two letters to a leaf; each book to have 420 pages; books to be full bound, Russia ends. Case books will be arranged one for each sex.
- No. II. Index Book. With key. Size of page 10 x 14; each book to have 175 pages; each page numbered consecutively from 1; binding full Russia ends. Index books will be arranged one for each sex.
- . No. III. Admission Book. Size of page 8½ x 14 inches; to have 360 pages; no index or paging; binding to be best full bound ledger. Admission books will be arranged one for each sex.
- No. IV. Record of Discharges. Size of page 8½ x 14 inches, to have 360 pages; no index or paging; binding to be best full bound, Russia ends. One volume for each sex.
- No. V. Prescription Record. Size of page  $8\frac{1}{2}$  x 14 inches; to have 360 pages; index 26 pages. Binding to be best full Russia ends. One volume for each sex.
- No. VI. Autopsy Record. Size of page  $8\frac{1}{2}$  x 14 inches; each book to have 420 pages. No division into sexes. To be paged consecutively from 1. No index. Full bound, Russia ends.
- No. VII. Burial Record. Size of page  $9\frac{1}{2} \times 12$  inches; end opening; to have 200 pages; no division into sexes; no index. Binding, strongest full bound black Morocco.
- No. VIII. Physician's Daily Report. Size of paper 8 x 10½. (Single Record).

Sample sheets of the above described forms will be furnished upon application. By the Commission:

[L. S.]

T. E. McGARR, Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunacy, held at the Capitol, in the City of Albany, on the ninth day of September, 1891.

Present—Carlos F. MacDonald, M. D., President, Goodwin Brown, Henry A. Reeves,

In the Matter of the Admission of Private or Pay Patients to the State Hospitals for the Insane.

The laws of the State having declared that the State Hospitals were erected and are to be so maintained and governed that the public insane patients, for which class the Hospitals were established, shall have the preference—the statute expressly providing as follows: "Whenever there are vacancies in the asylum the managers may authorize the superintendent to admit, under special agreements, such recent cases as may seek admission under peculiarly afflictive circumstances, or which in his opinion promise speedy recovery;"—and the Commission being required, by chap. 126, of the Laws of 1890, "to forthwith cause the removal * * * * from the counties of * * * * as many of the pauper and indigent insane as can be accommodated;" and the Commission having, in conference, requested the opinion of the managers and superintendents of said Hospitals touching the admission of private or pay patients, which after due deliberation was given in a resolution adopted by the affirmative vote of six of the eight Hospitals—one being unrepresented and one not voting—as follows:

"Resolved, That it is the sense of this meeting that the State Hospitals should be permitted to receive private patients from any part of the State without restriction, the rate not to exceed ten dollars per week;" and

In order that the rights of the insane poor, and of such as can pay small sums only, may be fully protected by reserving to their use and benefit as much room space as may properly be required, and in order to guard against the restriction of such space by its undue allowance to private or pay patients who may desire it as an equivalent for a large weekly or monthly compensation; it is hereby

#### ORDERED:

- 1. That on and after October 1, 1891, no private or pay patient at any State Hospital be permitted to occupy more than one room for his or her personal use or behoof, or to command the exclusive services of an attendant; and, thereafter, there shall be no distinction permitted between public and private or pay patients as to the care and accommodation furnished them.
- 2. That whenever the managers or trustees shall determine that vacancies exist, private or pay patients may be admitted by them without further restriction, at a rate of compensation not to exceed ten dollars per week, preference to be given in all cases to patients of small or moderate means.

- 3. That this order, unless specially so directed, shall not be held to require the removal of the private or pay patients in custody October 1, 1891.
- 4. That this order shall take effect October 1, 1891, and on said date the order relating to private or pay patients entered Sept. 2, 1890, shall cease and be of no effect.

By the Commission:

[L. S.]

T. E. MACGARR. Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunacy held at the Capitol, in the City of Albany, on the ninth day of September, 1891.

Present—Carlos F. MacDonald, M. D., President, Goodwin Brown, Henry A. Reeves,

Whereas, The statute creating the State Commission in Lunacy requires that it 'shall, from time to time, meet the managers, trustees or responsible authorities of each institution, or as many of the number as practicable, in conference, and consider in detail all questions of management and of improvement of their respective institutions," therefore be it

Resolved, That on the second Thursday each of November and May a session of the Commission be held for the purposes set forth in the preamble of this resolution, at the Capitol in the City of Albany, unless otherwise ordered, and that the managers, trustees or responsible authorities of each hospital or institution for the care, custody or treatment of the insane be requested to send a representative thereto.

By the Commission:

[L. S.]

T. E. McGarr, Secretary.

STATE OF NEW YORK, CIVIL SERVICE COMMISSION, ALBANY, N. Y.

An open competitive examination of candidates for the positions of First and Junior Assistant Physicians, and Apothecaries in State Hospitals, will be held at the Office of this Commission, on Thursday, October 22d.

JOHN B. RILEY, Chief Examiner.





E. J. Wilkins M. D.

# AMERICAN

# JOURNAL OF INSANITY.

JANUARY, 1892.

# PHYSICAL EDUCATION OF CHILDREN.*

BY WALTER CHANNING, M. D., Brookline, Mass.

In considering the status of society as we find it to-day, our attention is arrested by the number of unstable, nervous, hypersensitive individuals we are brought into contact with. Especially in the boys and girls growing up we find restlessness, apparently due in part to an irritability of the nervous system; love of excitement; lack of self-restraint, and a degree of egotism which is so strong that educational influences are often insufficient to overcome, or even sensibly modify it. A little further investigation reveals the fact that in many of the families of these boys and girls there have been cases of nervous prostration, insanity or some form of disease of neurotic origin, and some of these forms of nervous disease show a tendency to become chronic, or organic.

A new type of child, we might say, has been developed, which has the so-called "neurasthenic temperament;" a temperament on which organic forms of mental disease may easily become grafted, under unfavorable conditions of the environment. Let these conditions exist up to puberty, and it is probable that insanity may already show itself. If it has not, latent mental tendencies are present, which will slowly undermine the self-control of the individual, and at some critical period, later in life, he will become the subject of some degree of mental impairment.

As those who have made the treatment of insanity a specialty are impressed by the congenital forms of mental disease occur-

^{*} Read at the Annual Meeting of the American Social Science Association, September, 1891.

ring in early life, they are even more impressed by an organic and fatal form of mental disease, accompanied by paralysis, occurring in the adult. Seventy years ago this form of disease was so little prevalent that it had not been identified as a form of distinct disease. Thirty years ago in this country it was rare among men and almost wholly unknown among women, and is said to have been unknown among negroes before the war. During the last thirty years it has become more and more common, being now frequent among women, though much more frequent among men, and negroes are not exempt from it.

Of all forms of disease, treated in lunatic hospitals, it contributes the largest per cent. of deaths, being probably always fatal in its termination, though this point is sometimes disputed. A part of the increase in this particular form of cerebral disease may be no doubt accounted for by more close and accurate observation, which has tended to bring together groups of symptoms formerly widely separated, in this way broadening the classification. Making, however, due allowance for this fact, it is still true that there has been a steady increase in this disease.

The cause of insanity has been a subject of discussion for many years, and it has been customary to study lunatic hospital statistics for information in the matter. Several years ago I pursued the same method myself, analyzing 24,523 cases. I was surprised to find in the first place no cause assigned in 33 ° per cent. Such a lack of knowledge of the causation of one-third of the cases, would of course seriously detract from any conclusions to be drawn from the remaining two-thirds.

In the second place I found only 2½ per cent. of the cases was supposed to be due to hereditary predisposition. Now while cases due to this cause alone are not common, no doubt heredity as a vital factor in the causation would be found in more than fifty per cent. of cases, and hence in these statistics heredity does not assume its due importance as a cause.

Again I found "ill health" assigned as a cause in 17% per cent. The phrase ill health is of such broad significance that it may mean almost anything, but it is here used to include all kinds of bodily ailments which might act as causative agents, either directly or indirectly, in producing the mental disease. As insanity is a physical disease, and physical impairment or changes in nutrition are found in most cases, it would appear

probable that this small percentage does not approximate to the truth, and I think further discussion will confirm this opinion.

There are many other causes mentioned in hospital statistics, such as "alcoholism," "business anxiety," "domestic affliction," etc., which no doubt have been conspicuous factors in producing attacks of insanity, but the more carefully we study their relation to these attacks, the more apparent it becomes that they are only factors, not sole causes by themselves alone.

The whole fabric of lunatic hospital tables of causation has been built up out of statements and evidence furnished by the families, friends or acquaintances of patients, usually at the time the patients are admitted to the hospital. Often the physicians' certificates state the cause, but this is in most cases derived from the same sources. If we sift the evidence, we find first that it is furnished by persons largely ignorant of the nature of insanity; second, the most prominent condition of a probable causative nature nearest to the time of the attack is assigned as the sole cause: third, relatives and friends are often unwilling to assign a cause which may reflect unfavorably on the patient; fourth, hospital officials have no time nor opportunity to examine and verify, or reject the causes given. The more consideration we give to these tables, the more strongly convinced we become that they throw little light on the subject, in fact are positively misleading. Hence has arisen much misconception, and many theories have resulted as to the nature and cause of insanity which are superficial and narrow.

There are a good many things in this world which do not give satisfactory results if subjected to statistical analysis, and among these is the causation of insanity. Let the method of making the statistics be never so satisfactory, there will still be much that cannot be brought in the form of figures. Instead of being able to put our finger on one cause of insanity, and saying that alone is responsible for the attack, we discover that many influences have been at work, some of them perhaps for years, each contributing to a degree not to be determined its causal effect in producing the final attack. It is no one factor alone, but many that have combined. How then are we to tabulate a cause when there have been many together?

It is not many years since insanity was first called a physical disease, in contradistinction to the older theory that it was a

moral disease. This was a great advance in our conception of the true nature of insanity, as no doubt there is physical disturbance or impairment in all cases. It had the bad effect, however, of leading us to regard insanity as an entity among diseases, very much like pneumonia or typhoid fever, dependent on ascertainable causes and amenable to specific treatment.

Acting on the modern theory, hospitals for treatment, managed by medical men, have been established, and it cannot be denied that they so far provide the best means of treatment and care for the insane. These institutions are called hospitals, and they furnish medical treatment for the body; but that is after all a very small part of their work. Their inmates are called insane, not so much because they have a bodily disease, as because they have lost the power of self-control, and require help to restrain themselves. The restraining power of society is no longer sufficient to control them; they have been changed again into children, requiring something outside their own volition to make a continuance of life possible for them.

The lunatic hospital then is much more than a remedial institution. It really assumes toward the patient the attitude of parent, or guardian, and says: "I will take you and shield you from the world, letting no one harm you, and letting you harm no one. I will encourage your good tendencies, check your bad ones. Give you occupation in the form of diversion, and physical and mental work. I will improve the nutrition of your body, and try in every way to educate you and make it possible for you to again live in the society of your fellow men. You come to me as a sick and sorrowing child without will or strength; I will restore you, or let you die in quiet here."

Think how important and vital the function of an institution must be in its relations to society, which necessarily deprives man of what is of the greatest value to him—his personal liberty—and then endeavors by its care and treatment to reawaken in him the highest faculties of the mind, which are slumbering, or lost!

The existence of such institutions shows the imperativeness of the necessity; and the rapid increase in the number which they care for, shows how widespread the necessity has become. A recent census bulletin, published in May of the present year, states that the increase in the number of insane persons treated in institutions in the nine years beginning in 1881 and ending in 1889, was 73.53 per cent.. or to give the exact figures, 56,205 were treated in 1881, and 97,535 in 1889.

These statistics, it should be said, do not show the increase in insanity in the general population, but merely the number under treatment in institutions.

The large number of inmates of lunatic hospitals represents something much more serious than the tables of causation of insanity would indicate. On a very superficial examination we find that two-thirds of these inmates are in a condition which is incurable. The disease is so deep-rooted and organic that henceforth they will be simply a burden on the community, and drag along for years an existence of no service to anyone. On the contrary, they will be only a source of sorrow and suffering to their friends, and a tremendous financial drain.

When we consider the subject of idiocy we find the conditions still more serious. The increase in the number of idiots is very steady, and we are just beginning to realize the necessity of provision for them, which has so far been very inadequate. In 1880 the census reported 76,895 idiots, as found in the general population, but of these only 9,725 were in all kinds of institutions. Dr. W. E. Fernald, superintendent of the Massachusetts School for the Feeble-minded, writes me that the number in institutions has at least doubled in ten years.

When we visit an idiot asylum and make inquiries as to the care and history of their inmates, and examine the idiots themselves, we find food for very grave reflections. Here are human beings, in some cases, capable of considerable education, which will make it possible for them to eat, walk, clothe themselves, talk a little, work a little, play a little; but of what use are they to society? Of none whatever as a general rule. Do the very best you can with them—and splendid work is being done—and yet they can never contribute to the work of the world. They are little more than brutes, poor creatures! with dim glimmerings of reason, or consciousness. Their senses may to some extent respond when roused into activity from without, but they are dead to great thoughts and noble purposes.

The lower organs and functions of the body in the idiot share in the degeneration, which is at first glance most noticeable of the highest, the brain. Dr. G. Langdon Down, the great English authority on idiocy, says: "There is scarcely an organ which is not gravely altered in idiots; the circulation and respiration are abnormal; the skin exhibits perturbed functions; defective innervation, lesions of mobility and nutrition are abundantly met with; the bodily conformation is of an aberrant kind," &c.

The life of the idiot is scarcely more than vegetative, unless by the most painstaking education it may have been developed into something more animal. It is a struggle for existence, which nature intends shall end in defeat and death. Man is often able by his little acts and expedients to interfere and arrest the downward progress, but it is a hand to hand fight, in which he is usually worsted in the end.

As the amœba represents the beginning of life, the earliest form of existence, the idiot represents the end, the final stage before extinction. While countless centuries of evolution have intervened between the beginning of life and man at his best, the descent to idiocy is more sudden, more abrupt. It constitutes, as it were, the fall of man from his highest to his lowest estate; from man a little lower than the angels, to man little higher than the beasts. It is none the less the end, however, than the amœba was the beginning. This fall to idiocy, which, essentially physical in its character, is attended by such profound mental changes, probably is not so rapid in its development as at first sight appears, and insanity, which in many cases is a factor in the descent, is also of slow growth.

It is not then, as already said above, to such superficial causes as "domestic affliction," "business anxiety," "ill-health," &c., that we are to solely attribute the insanity. As certain tendencies, transmitted or acquired characteristics, accidental variations, use, or disuse and other influences have slowly evolved man, so precisely similar influences acting in new ways, for long periods of years, have led to a degenerative type of man, sure to become insane, idiotic, or extinct under certain combinations of circumstances. Can it be doubted that this combination of circumstances is often present in the life of to-day?

The body itself and its environment are not mutually adapted to each other. Man was undoubtedly at some period of his existence a perfectly endowed animal, each organ acting harmoniously with all the others, and all perfectly adjusted to the outer world. As long as the equilibrium was maintained, he continued essentially healthy, and insanity and idiocy were unknown; but when the intellectual and moral side became responsive, the brain had a strain thrown upon it out of due proportion to its power of resistance. Could the consequences have been foreseen it is imaginable that steps might have been taken to so modify conditions as to avert them. But that was hardly possible, as effects depending on natural laws are generally reached before we are lel to investigate their causes.

In any form of animal life, the type best adapted to the environment would have been preserved, as it would have been a mere struggle for existence. With man it was vastly different, because he was modifying the environment itself, and not leaving his organism to be reacted upon by purely natural laws. He struggled for the existence of principles, for ideas, for society, and in so doing created an artificial life, to which the diseases of modern times have taught us he could often not adapt himself.

Had the survival of the fittest been the principle on which society has been built up, and not the survival of all, there is no question that the type of man to-day would represent something much stronger physically, and insanity and idiocy would be rare diseases. But such a principle of life would be only animal after all, and the highest attributes of society would be missing.

Unlike nature, society has preserved everything, both good and bad. This is the highest form of humanity, but it must produce its effect on the physical type. Our jails, our almshouses, our lunatic hospitals, our idiot asylums, do an immense amount of good from a humanitarian point of view; but they preserve and foster the weaknesses and defects, mental, moral and physical, of mankind, and are of course tremendously instrumental in perpetuating such weaknesses and defects.

Such a result is inevitable. The weak and the bad are to be cared for, and not destroyed. They are an incident to the evolution of something better, and in time the unfavorable tendencies which they keep alive and transmit will be modified or overcome, but they are a most important factor. The harm which they may do to society is not sufficiently understood or guarded against. If, for instance, marriages among the

defective classes were only allowed under conditions strictly favorable, it is probable that in time crime, idiocy and insanity would show a decided decrease.

Perhaps it will be said I lose sight of what has already been accomplished in the way of lessening disease and crime, by the institution method of care, treatment and reformation. I therefore hasten to say that I am confident that such a method helps to do away with the evils mentioned, and especially holds them in check. Thereby much indirect good is done, especially from a moral point of view. The world is morally better and healthier, and principles exert a stronger influnece than ever.

What I especially wish to bring out in what I have written above is the amount of physical degeneration, which is a vital factor in what appears at first to be only mental or moral defect. Among the so-called "defective classes" this degeneration has become apparent more and more each year, and is now beginning to be studied with some care, but our methods of provision for these classes have until recently overlooked the importance of thorough physical treatment and care. The moral side has received a vast amount of attention, but the body itself, the mechanism, which must be sound if its mental and moral manifestations are to be natural, has received little scientific consideration.

In the general community, strange as it may seem, we have largely ignored the study of the physical side of education, until within the last twenty years. Special diseases have received a vast amount of consideration, but how to preserve a sound body outside of a sound mind has received little. We have often heard of a sound mind in a sound body, and have thought if we could keep the mind strong by cultivation and development, the body would take care of itself. In some way the greater, the sound mind, seemed to include the less, the sound body. We reasoned that if we could keep the mainspring of the watch in order, the larger wheels, the crystal, the hands, the case would need no further care. We failed to see. as long as the main-spring worked, that it could do nothing by itself. It went well, to be sure, when oiled and free from dust. But when one hand broke we experienced difficulty in telling time. Then we thought only a little superficial repair was necessary, and for a time all went well again. After a while one of the larger wheels got out of order and the watch ceased to work. Again we thought only a little oiling and gearing of the main-spring was necessary. But this time it did not work, for there was a lack of adjustment. Thus thousands of watches got out of order, and many were ruined, vet all the time we were still trying to repair the main-spring only, sometimes succeeding, often failing, and refusing to learn the lesson of experience. It was not until many watches refused to work, and the supply threatened to give out, that we were led to think that something more than the main-spring must be out of order, and began to carefully examine each watch by itself to find the individual defect. Then we were surprised to find how many little imperfections there were in all parts of the watch which were responsible for its irregular action. One or two little imperfections would not materially affect its working, though each produced some effect. But several of these small imperfections, or one in a large wheel, would impede or prevent the movement of the main-spring itself. In some such way we blundered along in our study of the action of the brain and nervous system.

The body is not a mechanical device like a watch, but a plastic organism, as John Fiske has said, like a flower, of slow growth, and slowly adapting itself to its environment; but after all, the simile of the watch helps to make clear my meaning.

One thing after another has led me up to the conviction that there is a basis of physical degeneracy at the bottom of the mental impairment and neurotic tendencies now so frequent. If such is the case it must be overcome, not by treating the overlying and most conspicuous symptoms, but by attacking the cause. If there is physical degeneracy, then our efforts must be directed toward some means of bringing about physical improvement.

It is to me a most gratifying and significant fact, that physical education has within a few years taken such a vigorous step forward, that in the end it may accomplish this very result. It is too much to assume that the physical deterioration of the race, as illustrated in our defective and dependent classes, had any important influence in starting the movement in any direct or noticeable manner. Like other important movements, it probably came into existence from natural causes. The need

existed, society wanted it, and it came perhaps as naturally as rain from heaven. Everything undoubtedly exerted its unconscious individual influence at some point, bringing about the much needed result. And what has actually happened within ten years?

In answer it may be said that scores of gymnasiums have been started all over the country. The so-called "American," German and Swedish systems of gymnastics are taught at numerous winter and summer schools, which before were hardly known. In Boston there is an admirable normal school of gymnastics with a fine library, founded by Mrs. Heminway, and there are also several other good schools of physical training there, notably those of Dr. Sargent and Baron Posse. Physical training is taught at many schools, both public and private, throughout the country. Many colleges have courses, and their gymnastics are required under scientific supervision. Boston has a scientific medical director of physical training in its public schools. There is a large and flourishing national association for the advancement of the science of physical training. All this and much more might be said in answer to this question, but it demonstrates how active the interest in physical training or education is at the present time.

Up to within the last ten years almost, it may be said, the interest in gymnastics was in the direction of athletics, or for developing individual strength, by means of which young men might win in competitive sports. This awakened interest in athletics was only the forerunner of what was later to lead to scientific physical training, or true physical education. In such a system of education, athletics have their appropriate place, but they are not its end and aim. Few are fitted to train for athletic competitions; everyone should receive a physical education.

When we look back now, we can see how many influences were at work which would build up a physical educational system, when its need should become imperative. Almost at the beginning of the century, for instance, Ling was at work in Sweden expounding a theory of physical training, so in advance of the time that it would not be understood in this country for nearly a hundred years. The practical part of his work was soon to be put into operation in a limited way in Stockholm,

but that too has steadily grown in its completeness and application from year to year. But in this country the ground was not ready for the seed even, we might say, until within the last ten years. During these years, however, the seed has been sown, and very rapid progress has been made. It must necessarily be long before it will attain the thoroughness characteristic of it in Sweden, but it will come in time.

Another important influence at work to accomplish the same result has been, and is, the kindergarten system of education as originated by Froebel. A great observer of children, he was led to see how everything in their lives was at first physical. The most spiritual and refined of teachers in his ideas about children, he could not overlook the prominence of this side of the child. A writer has said*: "But there is a third aspect of the kindergarten system which * * * is the one to which Froebel gives the greatest prominence; it is the physical development of children. True to his central idea of the continuity of the universe, and of all its different parts, he cannot separate the human body from the mind and soul of which it is the outward expression. The three are closely bound up together, and must be treated accordingly. But in the beginning of life the intellectual and spiritual natures exist only in the germ, and the physical nature with its instincts and necessities plays the prominent part. If, then, education is to act as a guide to natural development, and not as a hindrance, it must take this fact into account, and during the first years of life devote itself chiefly to calling out and cultivating the limbs and senses which are intended as organs of the mind and spirit, so that when the latter begin to act they may have fit instruments to work with. This is the principle underlying all the 'play' which enters into the kindergarten system, and which is so planned that, while it develops all the different parts of the body in a healthy and pleasurable manner, it serves also by various means, such as rhythmical movement, dramatic representation, accompanying song and narrative, to awaken the higher senses and faculties."

These outlined principles of Froebel's system are certainly correct, and broad enough to cover everything, but they have so far received much too limited consideration for several reasons:

^{*}The Child and Child-nature. Baroness Bülow. Translator's Preface, p. IX,

First—There has been up to what we may call the present time, no sufficiently strong demand for the application of such a system. The old-fashioned methods of the more purely intellectual education were sufficient. Children were sent to school to learn what they could out of books, and thus acquire a stock of "book-learning." Their bodies and their special senses were supposed to be already educated, and thus they were all ready to assimilate whatever might be taught. Parents, it may be said, or the public if we choose to use a broader expression, asked for no better kind of training. It was all they or their grandparents had had and should be enough for their children.

Secondly—It was the case that educators themselves were ignorant of how much more there was to education than information from books. No demand was made on them for anything better; they in turn had received nothing more, and they did not realize that there was anything further possible.

Thirdly—It may be said that the cause of physical training has always been retarded, even since we have had more clear ideas of its significance and value, by the death of properly qualified exponents. There were sporadic teachers of peculiar systems of gymnastics; there were gymnasium "professors;" there were amateur and professional athletes. None of these however understood the science of physical training, theoretically and practically, and hence the physical training side of the kindergarten system could not be much developed. There was no practical way of putting theories into active operation, and thus testing them and adopting them if of benefit.

Now we can see how these objections are being removed. The need of physical education becomes more apparent each year. The old-fashioned method is not enough for the present generation of young boys and girls who are, as we have seen, inclined to nervous troubles. With new types of fauna and flora, new methods of cultivation are required. So with a new type of boy and girl. A child of delicately organized nervous fibre, prone to deterioration, with highly specialized senses, great personal freedom, comparatively little parental authority, is such a contrast to the child of a hundred years ago, as to be almost a new type. The environment is of course an almost equal contrast, but it is an environment calculated to throw an increased strain on this new kind of child.

The demand now is to preserve what there is of good in the child; to so fortify and strengthen him that he may be able to exist. We see his life in danger from the over-stimulation to which he is exposed. In the very multiplication of goods or pleasures lies a source of peril. He is surrounded by temptations, not to sin, morally, but to yield to self-gratification, to lead a life of ease and abandon the physical struggle for existence, which is less real because less apparent, and therefore liable to be lost sight of.

There certainly is now apparent a realization on the part of many educators of the different kind of training required for children. They see that the child must be strengthened physically if he is to attain to perfect growth, morally and mentally. They must do what they never have done before, study and train their children physically, if they are to develop the harmony of the child-nature as a whole. It is not now enough to blindly follow conventional standards of education. These must now be modified with boldness and decision to meet the needs of the new type of child. But physical education begins long before the age is reached to enter the kindergarten, and it is the mother who will be called on to apply this early education. It may be said that physical training begins in the home, and will be always continued there. It is not to be given up when the child goes to school; on the contrary the infantile kindergarten first, and the higher grade kindergarten afterward, is to continue this training, and to so widen and extend its scope that it shall develop the mind and character of the child, while strengthening and preserving its body.

In past generations, when life was more simple and regular, home discipline was more rigid, and however much harm it may have worked in individual cases—a question I do not attempt to discuss here—it exerted a distinct and powerful influence. Now I think the case is different. Parental authority is weakened. Parents themselves are less at home. Many interests take them away and make it less necessary to develop home interests. The child is also less at home. His outside amusements and occupations are multiplied. He finds so much to do outside that he cares less what he has to do at home. His character is considerably moulded by external surroundings. He feels a

great degree of personal freedom; he is little conscious of home restraints and parental authority. In consequence of these things, children and their parents are less dependent on each other than formerly. The child reverences and respects his parent less, and the parent studies and educates the child less.

It is an encouraging sign of the times that educators like Froebel have recognized the great importance of the early training, and have partially pointed out methods of applying this training. But the most difficult part of the problem—the actual applying of these methods—remains. How is a nervous mother, not over strong at best, with household, social and other duties occupying all her time, and exhausting such mental capacity as she may have, to give up much time and thought to the study of her children?

We find now and then mothers who are striving most laboriously, with highly sensitive, or over-wrought consciences, to do their whole duty by their children. They incessantly watch them day and night; try every experiment; adopt any suggestions. They are apt unfortunately to do too much, and may strengthen the very weaknesses in their children—perhaps a continuation of their heredity—which they are really anxious to remove.

These occasional sporadic instances should not be underestimated, for they are of significance; but the mother herself must be educated, and her mode of life changed before she can do her children justice. She has got to be physically trained herself, and to have a normal organization before she will realize that there is an alphabet of health. If she once learns this of her personal knowledge, she will never rest satisfied until she has taught it to her children. But to do this she will find that she requires more time, and this will lead to her giving up some of the duties which before seemed imperative, but which now must take a secondary place.

As the child is the father of the man, it may be some generations before we shall get this kind of mother, for it may be only the well trained child physically that will develop such a species. But it must be her early training which will exert the influence necessary to take the first step on the way toward physical regeneration.

The method of training begun in the home, must of course

be the foundation for the later training of the child. Not only the laws of ordinary bodily development must be understood and followed, but the laws of disease and transmitted defect as well. With a certain organization certain methods must be followed from the first. Inherited weaknesses must be counteracted, and at every point an effort made to maintain a condition of stable equilibrium.

The mother must study her child as an individual both from the physical and mental stand point: but as the former includes the latter, which depends upon it, the importance of the latter must not be exaggerated. She must begin in the earliest months of infancy to observe, train and mould the child. She must regard as an utter fallacy, the old theory that the mind does not begin to develop until the school age, and the character will take care of itself. She must on the contrary learn to feel that the character is permanently established before the school age. And she must further be made to remember that strong minds and healthy character grow out of well bodies. To learn how far physical training may be carried will be the most difficult and essential part of her work, and I venture to say from my own experience in physicial training that the results will astonish her. Such a plan of home-training as I here allude to, but have not time to detail, will. I think, have a tendency to restore the close relations of parents and children which the progress of time and events has served to relax. While the austerity of parental authority will not be restored, there will be more constant association and mutual dependence. The home will then become the ideal heaven upon earth.

The best kind of kindergarten training will begin in the home, and the home training will continue in the kindergarten. And these methods of training will continue into all the higher education. That the amount of intellectual training which children receive now in the higher schools is out of proportion to what they have the physical capacity to assimilate, I have no doubt. An immense mass of what is taught children makes no impression, and much time is thus wasted. It is not that the aggregate mass is too large; it is the method of instruction, and the character of the mass. The same amount of knowledge of proper subjects, taught after proper physiological methods, could be easily acquired.

What a child can learn is a matter of the personal equation; no two children are precisely alike. All children are possessed of a definite nervous mechanism, through which their learning is acquired, and this mechanism is dependent for its activity on definite physical laws. It is plastic; it is immensely sensitive; it is easily upset, though capable of an infinite amount of work by right methods. It can be trained in almost any direction by forming habits which tend to become fixed. It inherits tendencies to bad habits, which show themselves in all sorts of strange and unexpected ways. It is probably subject to a law of rhythm of rest and activity, therefore to do its work it must have enough rest. It will allow of a protracted over-strain, then suddenly give way, perhaps never again to be restored to its former integrity.

To satisfy the conditions which will keep such a complicated mechanism as this, fit to do its work, now and in the future, is a task of no mean proportions, but not by any means a hopeless one if we once recognize its importance, and profiting by experience, follow such indications as have been given us.

In the first place we must not be too closely held down by traditions. To a certain extent, we may say we know what we want to teach the child, but we do not know very clearly how best to do it, and it is just here that psychology and physiology will be of great assistance.

Psychology tells us that "man is born with a tendency to do more things than he has ready-made arrangements for in his nerve centres. Most of the performances of other animals are automatic. But in him the number of them is so enormous that most of them must be the fruit of painful study."*

Here is an immense reserve force of nervous energy which can be made available to do the work of the nervous system if we only knew how to do it, and it can be so developed as to maintain the equilibrium and not destroy it.

Physiologists have long ago shown us that habit is a powerful factor in every process of development. So with the nervous system, habit is the means which must be used for its redemption and preservation. Carpenter (quoted by James) says: "Our nervous system grows to the modes in which it has been exercised." "Habit," says James, "simplifies the movements

^{*} James' Psychology.

required to achieve a given result, makes them accurate and diminishes fatigue."*

The animal is healthy because by instinct every movement, every act, has grown out of fixed habits of an absolutely normal character. His acts, though limited in variety, are exactly adapted to his surroundings.

The idiot, if of a very low grade, may show as little variety in his acts as the animal, but everything is with him defective, or imperfect. He has no correct habit of action of any organ. His life is a series of vain, incoordinated movements, and he would quickly perish if he were not kept alive by others.

The brain and the rest of the nervous apparatus are so constructed that they are capable of receiving new impressions, which may become permanently organized through a large part of life. There is a centre in the brain for every movement of every muscle, and as the number of muscular movements is nearly innumerable, the centres are also. Though we have no absolute knowledge of mental phenomena as far as their physical basis is concerned, and probably never shall have for that matter, we know that mental action accompanies muscular movement, and is subject to the same law of habit.

To improve, develop and preserve the body the greatest variety of muscular movements is necessary. And these movements must be made in a definite way, on a constantly progressive and widening plan. One after another of these movements tends to become fixed and habitual. The greater the number of these movements, the more perfect their operation, other things being equal, the stronger the body will be, and the better adapted to maintain the struggle for life.

Habits of mental action, though infinitely more complex and difficult to understand, are controllable after and susceptible to external influences in somewhat the same manner. There is no limit to the number of thoughts or ideas, and they tend to become fixed and habitual as do muscular movements. But there is this difference between muscular movements and mental action—the latter is in the end dependent on the former. The mind tends to weaken with the body, and in the idiot—the physical wreck—the mind is nearly extinct. Therefore if you wish to preserve the health of the mind you must first be sure

^{*} The Principles of Psychology. By William James. Op cit.

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you have a healthy body. We have so far educated the mind far in advance of the body. Let us now study the needs of the latter, and see how we can harmonize the developments of the two.

I have shown in the first part of this paper that a considerable and increasing amount of physical deterioration makes itself apparent in the community of to-day. While its extent need not be regarded as alarming, it should lead us to seriously consider what it is occasioned by and how it may be lessened.

In discussing this question I have also shown that the usually assigned causes of insanity in lunatic hospital reports are incidents in the causation, and give us imperfect and inadequate information of the whole cause. The truth appears to be that insanity, idiocy, unstable nervous systems, and weak bodies in other directions, are the results of the conditions of the society in which we live. The strain resulting from these conditions is too excessive, and the body gives way at its weakest point—the nervous system.

As deterioration in the race founded on a physical basis is apparent, and has so far increased rather than lessened, some further remedy is necessary to arrest its progress, and this remedy I have attempted to show can be found in the application of a broad and scientific method of physical training or education.

## MECHANICAL MASSAGE.*

BY B. D. EASTMAN, M. D., Superintendent of the State Insane Asylum, Topeka, Kansas.

The word massage denotes any process of conjoint motion and pressure applied to parts of the living body for remedial purposes. Massage implies some force from which the pressuremotion is derived, and involves the production of physiological consequences adapted to remedy defects arising from insufficient muscular action of the usual forms.

It requires only the most superficial observation of the movements of the living body to suggest how communicated motion. or more precisely motor-energy, may be made available as a true remedy. When one raises a weight, the act visible is but the outward manifestation of the actual process. The same motion could be imparted to the weight by mechanical means. the vital performance the gravitating force acts through the arm, the body and legs, to the feet resting on the ground. There has been set in action a series of muscular fibres, the cells of which have divided among themselves an amount of motor-energy sufficient to overcome the gravitation of the weight. The action of the muscles has caused displacement of the fluids in which they are bathed, and by which their power is supplied. Will power incited the muscles to action, and both muscles and nerves have undergone change of structure. circulation has been quickened, more air has been respired, and more oxygen extracted therefrom by the blood. Such are the gross interior processes necessary to the manifestation of motorenergy. The source of this energy is the changes which occur in the ultimate cell structures of the nerves and muscles. Now, massage produces similar physical and nutritive changes in the cell structures, in the circulation and oxygenation of the blood, and in the general physical consequences arising therefrom. But it employs exterior physical impressions and expenditures, which dispense with nerve influence, but are nevertheless capable

^{*} Read before the Association of Medical Superintendents of American Institutions for the Insane, at Washington, D. C., April 20, 1891.

of carrying forward the same interior processes to the standard of health.

Thus nature sets the example and teaches the lesson of massage in every healthy organism, which is but an arena for the never-ceasing spontaneous motions of respiration, of circulation. of digestion, and a multitude of lesser activities, which enure to the benefit of the physiological system. The primary effects of voluntary muscular action are interior and physiological. Only a portion of such action is expended on external objects. The remainder serves to strengthen and perfect the involuntary acts, and both converge to one point, which we call nutrition.

The processes of massage are similar to the motions which occur naturally and spontaneously in the vital organism of health, and have a similar purpose, viz., increased activity of the nutritive function, the source of all the powers of the organism. These processes, as applied by the hand or by suitable apparatus, constitute respectively manual and mechanical massage.

A class of cases comes under the care of every institution for the insane, in which there is great sluggishness in all the vital operations. The skin is clammy, the extremities cold, the circulation feeble, the breathing shallow, the digestion deranged, the bowels torpid, and the whole system clogged with effete matter. With this universal derangement of all the bodily functions, the mental powers are necessarily overwhelmed. The manifest indications in the treatment are to secure better circulation, especially in the veins and capillaries, to bring about better digestion and assimilation, to develop and properly distribute nervous energy, to bring into activity the dormant emunctories.—in short, to arouse and stimulate all the vital functions.

In considering how the desired results can best be accomplished the conclusion is speedily reached that drugs are inadequate. Something is needed which will give the system an impetus, which will rouse the whole vital machinery from this state of inertia. This profound depression is usually brought about by excessive strain upon the mental and bodily powers, together with insufficient nutrition, and one might be tempted to try the rest cure. But the inertia is already too profound, and the indications are for increased activity. The remedial measure which suggests itself to every one is physical exercise, which has already been shown to be nature's grand stimulus and tonic, and necessary to any improvement in the nutritive function. But the difficulty is such patients are unable to exercise to the required extent. This measure, if pushed, utterly exhausts the already weakened vital powers and completes the wreek. What is wanted is some device by which the needed stimulus can be given without exhaustion. Hand massage and the Turkish bath are agencies of undoubted value in these cases, but they do not fully meet the requirements.

About four years ago I had under my care an invalid lady who needed something out of the ordinary lines of treatment, and for whom I looked up sanitariums, rest cures, massage, etc., and finally decided to try mechanical massage, as developed by Dr. Geo. H. Taylor of New York, and employed by him in a wide range of eases, such as dyspepsia, neuralgia, paralysis and paralytic contractions, rheumatism, visceral and splenic disorders, and many others too numerous to mention.

The result of Dr. Taylor's treatment was so satisfactory in this instance that I was led to consider its applicability to certain cases of insanity, especially that class to which I have referred. I determined to give the system a trial, procured apparatus, and established a treatment room in the asylum.

To this apparatus, the principles upon which it operates, and its adaptability to many patients usually found in asylums, I will briefly call your attention. I make no pretense of having exhaustively studied the history and development of mechanical massage, but shall simply set forth what I have found useful in my asylum work.

These mechanical methods are in no sense imitations of the manual. The two do not cover the same ground, but extend their remedial effects in different directions. So far from being substitutes for, they are helps to each other, and may both be employed in the remedial treatment of the same individuals, to comply with separate and distinctly differing indications. Mechanical massage, however, is the form particularly applicable to asylum work. The motions being given by machinery are uniform, untiring, and free from any element of personal opposition.

The principle upon each which the apparatus in question operates is that of communicating rapid vibratory motions to various parts of the body. The general effect of this treatment is to increase the circulation, improve nutrition, equalize nerv-

ous force, increase the action of the liver, kidneys, and the whole digestive tract, by giving exercise without exhaustion;—in short, it most admirably fulfills the indications in those sluggish cases to which I have referred, and which it is so difficult to reach in the usual way. It is also well adapted to more acute and active forms of insanity.

The special machines which I deemed well suited to my purposes, and considered necessary to a fair trial of mechanical massage, and which I introduced at the Topeka Asylum, give six varieties of movement.

The simplest and most easily described of these is that for giving oscillatory vibration to the limbs. For the leg, the patient, sitting in an easy position, with the leg extended, places the foot in a receiver or holder, which simply connects the limb with a horizontal shaft. To this shaft is given a quick, short, oscillatory movement through an arc of about thirty degrees. When the shaft and foot are set in motion, the leg is caused slightly to turn on its axis. This motion extends to the hip joint and the muscles surrounding, together with all the soft parts of the leg, are set in vigorous but passive action. This effect depends upon the sudden change of motion, and upon compression produced by the slight but rapid twisting and untwisting of the longitudinal fibres of the limb.



Fig. 1.-Showing the manner in which the foot shaker is used.

For the arms the patient grasps a handle which has a movement similar to the foot shaker. The degree of oscillation is increased or diminished by variations of the grasp, the rigid arm and firm grasp causing the motion to extend quite through the arm and to affect the chest.



Fig. 2.—Showing the method of grasping the hand shaker.

The next two forms of apparatus present some points of apparent resemblance to the manual process, inasmuch as it transmits combined pressure and motion, which is the more impressive feature of the hand massage. This similarity has served to confer upon the mechanical process the name of rubbing. It is not rubbing, however, in the proper sense of the term, for the action is not one of friction on the skin. The skin adheres to the clothing, and this in turn to the rubber, and the friction is entirely between the mechanical ingredients of the fleshy parts, its fibres, membranes, molecular and atomic constituents. It is to these that the motor energy of the process is transferred. The leg rubber and the arm rubber are essentially on the same plan, but arranged in size and position to operate on the legs and arms respectively. They consist of two soft, elastic pads, having a rapid alternating, reciprocal motion, with suitable arrangements for adjusting the pressure, and for applying the action to the whole length of the limb placed between these pads.

The arrangement which lends itself to the most extensive uses is the V shaped pad. This pad is made of two pieces of thick elastic rubber fastened to a shank, and presenting soft flexible ends in the shape of a letter V. By suitable mechanism



FIG. 3.—Illustrating the leg rubber. By moving backwards, the rubbers act upone the whole length of the leg. The lever at left regulates the pressure by an adjustable weight. The close fitting dress shown in several of the illustrations is not necessary. It is entirely practicable for both sexes, in ordinary clothing, loosely worn, to use all the apparatus.

it is given a rapid perpendicular reciprocating motion, and is adjustable in height so that as the patient sits or stands it can be applied to any part of the body from the head to the feet, and is especially serviceable when it is desired to act directly upon any part of the trunk. When it is desired to affect the spine the form of the pad allows it to act with great energy on each side of the spinal column, while the spinous processes between the diverging pads entirely escape its action. The deep muscles of this region become profoundly affected by its action.

The immediate effect of the application of mechanical massage by any of these essentially similar methods, is the development of heat. A pleasureable feeling of warmth pervades the part together with a sensation indicating increased circulation of the blood. Part of the heat is carried by the blood to the whole body, and the result is a sensation of buoyancy and



Fig. 4.—Method of using the arm rubber. The pressure is controlled through the lever either by the hand of patient or operator, or by an adjustable weight.



Fig. 5.—The V shaped pad as applied to the leg.

strength pervading the system. After a few treatments the constitutional effect is shown by a general improvement of the circulation and a deepening of the respiration by increase of appetite, and by greater activity of the kidneys and bowels—indeed the whole nutritive function is stimulated to increased



Fig. 6.-The V shaped pad as applied to the back.

energy. Congestions and hyperamias are dissipated, and the proper balance of the circulation restored. This form of massage has a peculiar soothing action upon the nervous system. Sometimes even with the first application of the process restlessness and nervousness disappear, a tendency to sleep supervenes, and soon wakeful, fitful nights are transformed to quiet, restful ones.

Another apparatus called the abdominal kneader, takes somewhat varying forms, and is of great benefit especially in abdominal and pelvic derangements. This consists essentially of a low table or couch, the top adjustable as to height, and having a large central opening within which some form of kneading or percussing apparatus is made to operate upon the abdomen or side of the person lying thereon. This kneading

apparatus may consist of one or more balls slowly revolving in a perpendicular or in a horizontal plane, or of a pad with a slow to and fro motion. In the particular form which I selected, the apparatus gives a rapid percussing effect by means of two reciprocating pads much like large truss pads. This serves a most excellent purpose in stimulating the action of the liver, and in increasing peristaltic action.



Fig. 7.—The abdominal kneader or percusser. The slow moving kneader is best fitted for use in the position indicated. The rapid percusser is better for acting upon the liver and spleen, as the patient lies more upon the side.

There are various other machines and methods in use by Dr. Taylor which I shall not attempt to describe. Those that have been mentioned are necessary to a fair trial of his methods, but good results could be obtained with a less number and others could be added as occasion suggests.

The ordinary method of using this treatment is to take each of these processes about ten minutes, alternating with equal periods of rest. This will occupy about two hours. All the apparatus is applied to the ordinary clothing, which should be loose to permit suitable freedom of motion. Its successful use requires patience and perseverance, and a careful study and proper appreciation of the principles upon which it is founded. It is a potent remedy, and must be used with discretion.

While I am naturally inclined to conservatism in regard to new methods, and by no means regard novelty as improvement, I am firmly convinced that mechanical massage will prove to be of great value in the treatment of a great many cases of chronic disease which baffle ordinary treatment, notably dyspepsia, chronic nervous and rheumatic difficulties, paralytic troubles and contractions, the paralyses which sometimes follow acute disorders, visceral and splenic troubles, etc.

Like many other inventions, improvements and adaptations, the ideas underlying this form of treatment are not new. The Chinese have had a system of movement cure for more than three thousand years. The Brahmins have likewise practiced it for many centuries, though their methods are kept secret. The Swedish Movement Cure, from which has sprung the great variety of modern movements, physical culture, mechanical therapeutics, etc., was developed in the early part of this century by Peter Ling, the son of a Swedish curate, who was born in 1766. He was led to study the subject, and to develop and disseminate his ideas, by observing that an old gouty trouble of his right arm was relieved by the exercise of fencing. He took up and proceeded to master anatomy and physiology, and to invent and apply movements on physiological principles. These have been amplified, and are found to be a very valuable addition to our remedial agencies.

I have made use of this form of treatment for three years, finding it especially useful in the class of cases first mentioned, also in hypochondriacal cases, and those which required some external stimulus. I can heartily recommend it to those having under their care patients from the higher walks of life, and of sedentary habits, for whom it is difficult to provide suitable exercise.

I have made no especial tabulation of cases, but content myself with calling your attention, in this brief and inadequate paper, to the value of mechanical massage.

## TEACHINGS OF RECENT INVESTIGATIONS INTO THE CAUSATION OF INSANITY.*

BY CHAS. E. ATWOOD, M. D., State Hospital, Utica, N. Y.

The causes of insanity have always been of great popular interest, and are worthy of profound investigation. insanity came to be considered as a manifestation of actual physical disease, its ascribed causes were obscure and tinged with popular superstition and prejudice. In the sacred writings, it is recorded that evil spirits were supposed to occasion peculiar acts otherwise unexplainable; and though the Bible makes a distinction between the lunatic and the possessed, yet at the present day these terms are considered synonymous. In the poetry and writings of ancient Greece and Egypt mention is frequently made of mental derangement as an infliction of the gods; and similar views of diabolical possession or of divine origin prevailed until the time of Hippocrates, about 460 B. C. The writings of Hippocrates, and of Galen, 160 A. D., indicate a knowledge of the dependence of insanity on physical conditions, and also of the importance of heredity as a factor in transmission. But the good that they and others accomplished at that time was lost in the dark ages which followed, during which the insane were again supposed to be possessed of evil spirits, and thousands of them were executed as witches. Later, during the period of the revival of learning, causation was largely a matter of theory and metaphysical speculation. One set of writers considered that there could be only moral causes; another, that somatic causes alone were operative. As some good is likely to arise from any earnest controversy, so here there were concessions on either side as a result of experience, and the influence of both factors came to be acknowledged. Even at the present day, however, we occasionally see expressed some very absurd and erroneous ideas of causation. A late report of an American asylum for the

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insane mentions in a statistical table, such amusing instances as "biliary derangement" (twelve cases), "bloody flux," "egotism," "greediness," "laziness," "pain in the head," "women," "worms," and "want of mental capacity," as causes of the disease.

To ascertain the real operative causes in any given case is a difficult problem. The data obtainable are often insufficient; early symptoms may be mistaken for causes; we may be misled by false statements; we may undervalue the necessity of ascertaining causes; or we may not have the time or opportunity to devote to the subject.

As a fundamental proposition it has been stated, and, I think, with truth, that a person of average healthy constitution to begin with will not become insane from any of the ordinary vicissitudes of life; and, on the other hand, a person with inherited instability of nerve-structure may become insane from apparently slight causes. In other words, a majority of cases of insanity are due to two causes, hereditary predisposition on the one hand, and one or more exciting influences on the other. Hereditary predisposition is here taken in its broadest sense, and is meant not merely a tendency to insanity inherited from parents or grandparents, one or more of whom may have been insane; but also the inherently defective or unstable nervous organism which may be derived from ancestors who have suffered from allied nervous affections such as epilepsy, catalepsy, chorea, hysteria and hypochondriasis, or who have been addicted to vicious habits of living, or in whom there has been unfortunate consanguinity.

Statistics in reference to the importance of heredity are not entirely reliable, and are found to vary with different institutions where the insane are cared for. Of the 507 patients admitted to the Utica State Hospital last year, insane heredity was traced in over thirty-five per cent. The neurotic heredity would easily bring the percentage much higher, perhaps to seventy-five per cent. In 101 of the cases the causes could not be ascertained. The fact is, we have very imperfect data on which to base our ideas of the influence of heredity. The friends of the pauper and ignorant insane seem to know but little of their family history; while many of the better classes deny the existence of hereditary insanity in their families even when its existence is

apparent in the peculiar symptoms of the case, and perhaps in the very singularities of the relatives themselves. There seem to be some grounds for thinking that there is an insane diathesis. or strong tendency to insanity, fully as strong in some cases as the rheumatic diathesis or the inherited tendency to phthisis pulmonalis. This diathesis is sometimes recognizable, and when recognizable is of assistance in diagnosis in those cases where heredity is suspected, but denied by the friends. The symptoms of this inherited psychosis have been studied by Maudsley and others, and are found to "consist both in peculiarities of mental disposition and in peculiarities of bodily conformation." Close observation and study of such people have revealed the following conditions, one or several of which may be found in nearly every case: a peculiar shape or asymmetry of the head; a singular want of harmony in the features; a suspicious and distrustful look; a distinctly peculiar and uncertain manner; occasionally a stammering or otherwise defective speech, with the history of convulsions in early life followed later by habitual spasms of some of the facial muscles. With these bodily traits are associated certain peculiarities of mind. There may be an habitual extravagance of thought and feeling or an undue depression without explainable cause. In some there is an unreasonable disregard of social amenities or a habit of saying or doing proper things on improper occasions. In others may be noted, strange moodiness of temper; causeless fits of passion; extraordinary proneness to jealousy, distrustfulness and suspicion; an irresistible propensity to drink or indulge the sexual appetite; or an extraordinary degree of moral depravity. Without being able to call them actually insane, those relatives of insane people who present symptoms of a transmitted tendency to insanity, strongly marked, are often found "more suspicious and distrustful, more difficult to reason with, more impracticable" than even the patients themselves. Persons who present several of these diathetic peculiarities in a marked degree should be carefully guarded from those vicissitudes of life which are known to be especially active as exciting causes of insanity.

As regards the transmission of the tendency to insanity or the allied neuroses, heredity is more frequent on the mother's side, although the difference is not very great. It was found at the

Utica State Hospital last year, for example, that out of the 181 cases admitted during the year in whom insane heredity could be traced, fifty-two cases derived this predisposing cause from the paternal branch; sixty-seven from the maternal branch; fifteen from both the maternal and paternal branches; and forty-seven had insane relatives not immediately connected.

The potency of transmission is in proportion to the nearness of relationship. Though it has been noticed that there is occasionally a tendency to atavism in some cases, yet it is the rarest thing to find an entire intermediate generation free from all nervous disorder. If the grandmother, for illustration, was insane and the father and mother healthy, it will usually be found that an aunt or uncle is either insane, eccentric or noticeably neurotic. Again, a person with strong hereditary predisposition may remain sane all his life, if the circumstances of his education and environment are favorable, and his own nervous stability is not distinctly inferior to the normal. Further, heredity does not materially affect the curability of attacks of insanity, but it renders the patient more liable to relapses from slight exciting causes.

Among the other predisposing causes of insanity may be mentioned previous attacks; certain "constitutional" diseases which lower the general nervous tone, or effect decided alterations in nutrition; the influence of race, of faulty education, of certain occupations and of certain periods of life.

Race does not materially affect causation except in connection with emigration. The census of nativity of patients under treatment at the Utica State Hospital may be of some interest in this connection. On February 3, 1888, such a census was taken, and it was found that of a total of 593 patients, the number born in the United States of foreign parentage was 134 or 22.60 per cent., while 151 or 25.46 per cent. were born in foreign countries of foreign parents. Of these 151 insane patients of foreign parentage and foreign birth, 60.26 per cent. were Irish, 21.18 per cent. were German, and 8.60 per cent. English. I have also calculated the percentages of foreign nativity of insane patients admitted to the several New York State Hospitals during the fiscal year last past, and compared them with similar statistics in reference to the New York city asylums. Of the 1,942 patients admitted to

the State Hospitals alone, 50.14 per cent. had parents of foreign birth and 29.81 per cent. were foreign born themselves—12.87 per cent. being Irish, 8.34 per cent. German and 2.83 per cent. English. Of the 1,453 patients admitted to the New York city asylums alone, 78.32 per cent. had parents of foreign birth—67 per cent. were themselves foreign born; 28.01 per cent. being Irish, 18.30 per cent. German, 3.44 per cent. Russian and 2.82 per cent. English.

Statistics gathered from various sources show that sex and the condition of marriage or celibacy do not exert a marked influence in predisposition. As regards age, no period of life enjoys immunity from mental disorder, but certain periods strongly favor its development. These are puberty, the climacteric (in women) and old age. Insanity occurring in early life almost always indicates hereditary taint. Such derangement in childhood is usually in the form of imbecility or mental enfeeblement, but may exist as one of the varieties of mania or melancholia. Whatever the form, it seems to limit further mental development. At the age of puberty there is a rapid and sudden acquisition of new powers and possibilities; at the menopause there is a rapid loss of function. Both periods are attended by danger where there is a neurotic heredity. In the girl, during adolescence, hysteria may develop; in the boy, at the same period, mental enfeeblement or mania tending to dementia. The climacteric is more dangerous to women, and is most often attended by melancholia. In old age a certain amount of deterioration of the mental powers always accompanies the usual physical decay, but if there are operative causes tending to produce insanity, the normal deterioration may be hastened or prematurely induced, or it may become a diseased condition resulting in dementia.

Mental diseases are most frequent between the ages of thirty and fifty, which is the period of highest maturity, but also of greatest mental strain. Referring to a table showing the ages at the time of admission of the 507 persons admitted to the Utica State Hospital during the year ending September 30, 1890, we find that there were 135 men and 108 women, or a total of about forty-eight per cent. between the ages of thirty and fifty.

The influence of faulty education in predisposing to insanity is considerable; but is found in the line of one-sided or imper-

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feet development rather than in over-development of intellect. Sound development of the intellect forms a recognized safeguard against mental derangement, because it assists, in a measure, at least, in overceming those powerful passions and emotions to which all are subject, but which seem to be most insupportable and destructive in those of least intellectual culture. Again, those who are obliged to live by hard manual labor are more apt to be attacked by this disease, strange as it may appear, than those who are engaged in the less exhausting mental occupations or who do not work at all.

The number of insane and idiotic persons in the United States in 1880, as estimated by Dr. Tuke, was, in round numbers, 170,000; or one to every 300 inhabitants. In England, the proportion was about the same, and in both countries it has been slowly increasing during the century. In New York State there is one insane or idiotic person to every 250 inhabitants. The constant increase in the number of insane is thought by some to be only apparent and that it is due to the general increase in population; especially by the influx of degenerate foreign elements, forming about two-thirds of the insane of the state; also to the more exact methods employed in statistics; to the fact that more are brought yearly under hospital care, and to the circumstance that all improvement in hospital matters tends to lengthen the period of life amongst the inmates, thus causing patients to accumulate. Acknowledging these things to be true, is it not reasonable to ascribe, in addition, a greater activity of certain factors of causation? The hereditary propagation of nervous disorders, inducing unstable nervous equilibrium, has been constantly increasing; the excitement of commercial, social, and political affairs, especially in cities, great and unabating; the constantly increasing departure from simple modes of life brings new emotions and more intense desires; the feverish pursuit of gain and pleasure and many demoralizing influences: all these elements have been continually at work, and all predispose to mental degeneracy.

We come now to the *exciting* causes which usually assist the predisposing causes in determining an attack; but some of which may produce insanity when there is no predisposition. Some of these exciting causes act directly on the cerebral centres and may be called direct causes; some are internal agents acting

through the nerves primarily, and on the brain as a secondary or sympathetic effect: and some are external agents known as moral causes.

Among the direct causes producing insanity, (some of which are important from the fact that the healthiest brain is unable to resist them,) may be mentioned injuries to the head. Severe blows or falls on the head may produce injury to the brain from centre-coup or concussion. Symptoms of mental disorder referrable to this cause may come on shortly after the return to consciousness or after an interval of months or even years. Sunstroke and exposure to excessive heat are occasional causes. Sleeplessness is a condition favorable to the development of insanity, and is also a symptom of the disease early in its course. Sleeplessness is itself dependent on certain conditions, such as physical pain or suffering, undue activity of mind, anxiety, or prolonged mental strain. Organic brain diseases such as abscess, tumor, embolism, etc., produce more or less mental deterioration. Alteration in the blood supply to the brain is productive of mental disorder in various ways. A sudden loss of considerable blood in a voung person, as in traumatic hemorrhage, may occasion melancholia with stupor, The anergic physical condition associated with great deterioration of the blood in severe anæmia may be accompanied by a similar mental state; while sluggish or defective circulation is more apt to be an effect than a cause. The peculiar mental states. supervening in certain general diseases, such as the delirium of certain specific fevers, the depression and irritability of Bright's disease, are probably induced by the circulation in the blood of some poisonous agent; but, as a rule, death ensues before such an agent is found to accumulate sufficiently to produce actual insanity. There is a substance, however, which, circulating in the blood, acts on the brain by direct contact, and secondarily by interference with nutrition, that forms a not unfrequent cause of mental derangement, and that is alcohol. The intemperate use of liquor was a cause of the insanity of thirteen per cent. of the 270 male patients admitted to the Utica State Hospital last year, and of three per cent. of the 237 female patients admitted during the same time. Besides the poisonous action of the excessive use of alcoholics on the brain tissue and on general nutrition, they affect the moral tone and indirectly

lead to other damaging influences. Mental derangement from liquor is usually brought about by the habitual use of considerable quantities, though the effects produced and the amount and time required vary greatly with the individual. I have seen a typical case of frenzied melancholia produced by a small quantity of whiskey taken at one time by a person not accustomed to its use. We all know that delirium tremens may be a sequel of drink, and nearly all the forms of insanity may arise from the same cause. It is one of the causes of general paralysis, which is always fatal to life. One precaution ought to be taken, however, in considering intemperance as a factor in the etiology of insanity, and that is to ascertain whether it may not have been a possible early symptom instead of cause of the disease.

Some of the indirect causes of insanity were considered under the head of predisposing factors such as the influence of certain periods of life and of certain constitutional maladies. The other causes belonging to this category are pregnancy, child-birth and prolonged lactation. The ordinary dangers to which women are subjected in these physiological conditions are great enough, but those women who have an unstable nervous organism must meet one more peril—that of the possibility of mental derangement. Melancholia occurs most frequently in women predisposed to insanity during pregnancy and the period of lactation; while mania is more likely to follow childbirth or the puerperal state proper. Melancholia may follow childbirth if the patient is at the time in an enfeebled condition. Transitory insanity is also said to occur sometimes during the puerperal state, and may explain some cases of infanticide.

Uterine and ovarian diseases are occasional causes, but their influence is overestimated. Sexual excess and secret vices predispose in men to mental disorders, but they are more often a result than a cause of them.

We come now to the last division of our subject—the so-called moral causes. Among these causes are included domestic troubles, grief, anxieties, adverse circumstances, business perplexities, pecuniary difficulties, sudden fright, worry, and mental overwork. These factors are potent, largely in proportion to the amount of emotional excitement attending them. That this should be true is not difficult of explanation. It is thought that the normal processes utilized in intellectual effort

are simple processes; while emotions call into action more complex activities. Such being the case, it is easy to understand that excessive or unduly prolonged emotional excitement should be attended by a greater disturbance of the mental mechanism than would result from long continued intellection. Here again, however, more depends perhaps on the individual than on the circumstances.

There is no doubt that the surroundings, or physical environment, affect the development of the mind. But what has been called the vital environment has even a greater effect. By the vital environment is meant the moral atmosphere in which one lives. Many a mind is warped, stunted or diseased by the unfelt influences of unhealthy moral surroundings. Without further discussion of this part of our subject, about which much might be said, it is important to realize its great importance in reference to the production of hereditary predisposition to insanity and crime.

Any laborious occupation with close and vigorous attention to one line of ideas, may by its exhausting nature produce mental disorder. The reason more of our busiest intellectual men do not become insane is because they obtain recreation in variety of work. It is the long hours and intense application in one direction which results in mental strain and mental disorder in such cases. The prolonged process of preparation for competitive examinations in some of our schools is a fertile source of overwork, and might result in mental disorder.

The moral causes, such as grief, worry, fright and various troubles, which result in various stresses, are active in proportion to their severity and suddenness. In this respect the mind is comparable to a machine. If any delicate mechanism be started suddenly, and especially into very rapid activity, its component parts are likely to be injured. So too with respect to the organ of the mind. Sudden and great grief, sudden fright, sudden and great reverses of fortune are all attended by profound emotional disturbance, and in this way disorder the mental mechanism, and become sources of insanity.

It is not necessary to consider the origin of the various moral causes. Precarious circumstances, unhappiness in the family circle, etc., are sources of trouble, worry and anxiety, and may give rise to demoralization. Confinement, especially solitary confine-

ment, develops insanity—found mostly in prisons. Sudden change or relinquishment of habitual modes of employment, as in the aged retiring from business, has been known to produce melancholia.

The influence of religion depends largely on the amount of emotional excitement attending it, and is not a potent factor in causing insanity unless there be marked predisposition.

The subject of the causation of insanity is still imperfectly understood, and on an unscientific basis; but certain lessons may be drawn from our present knowledge. There should be a more thorough study of the subject to enable us to make intelligent efforts in the line of prevention. The general practitioner of medicine has the best opportunity to study the predisposing influences at work in the family and should be better informed on the subject of insanity by the teachings of the schools. Sufficient stress is not laid, in treatises on the subject, on the fact of the close relationship of the neuroses to insanity. existence of these milder forms of nervous disorder in a member of a family with hereditary taint should signalize precautionary measures for the prevention of the graver disease; while actual cases of insanity should be placed under immediate treatment, for early treatment yields a much higher percentage of recoveries.

The evil effects of prolonged emotional excitement have been noted. The remedy is not easily applied. Variety both in mental and physical work is necessary to prevent overstrain.

The subject of immigration is one of too great importance to be passed upon in a paper of these limits. But the fact that two-thirds of the insane of the state of New York are either foreign born or of foreign parentage, would seem to indicate that something more might be done in that direction towards prevention.

It is a recognized fact that attacks of mental derangement are dependent usually on several causes, some of which are inherent in the individual; others may be acting gradually for years perhaps without suspicion; and others are of short duration and sudden in their action. Insanity implies disorder of the highest nervous structures. If these structures are unstable as a result of bad heredity their derangement is producible by slight disturbances; while in cases in which

these structures are normally constituted, a violent disturbance is required to upset the equilibrium. While heredity is perhaps the most important factor in causation by producing the insane diathesis, "the natural tendency of the organism is to revert to the sound type." Attempts at the prevention of insanity will therefore be aided by nature, at least, to a certain extent. A good physical education prevents the development of diseased tendencies; sound mental discipline strengthens the powers of the mind; and the two together have a tendency to prevent the conjunction of circumstances known as exciting causes.

While the subject is receiving more and more attention each year, it is suggested that something further might be accomplished in preventing insanity by continued intelligent legislative action; by enlisting the secular press through our medical journals and books; by appropriate family and educational training: and by associated medical action. At present the most potent factor which is being constantly urged as a practical measure in prevention is the early treatment by appropriate means not only of insanity but of the allied nervous affections; and also the prevention of marriage of those hereditarily predisposed.

## *DIETEŢICS IN THE TREATMENT AND CURE OF INSANITY.

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Insanity is a symptom not only of mental aberration, but likewise of physical depletion and cerebral exhaustion. Especially is this true with regard to the various forms, shades, and degrees of melancholia and mania. We find in those suffering with mental depression oftentimes a direct lack of desire for food; while those laboring under a stress of mental exaltation are quite apt to neglect the inception of nourishment through inattention, rather than anorexia.

The first essential in the dietetic treatment of the unwilling insane for curative purposes, is the enforced administration of sufficient quantities of food to prevent too rapid waste throughout the individual system, and to promote recuperation from losses already sustained; and likewise to increase, if possible, the capitalized resources of the human form divine.

The second essential is the selection of such food as will most rapidly and surely promote the rebuilding of those portions of the human temple which have been disgruntled or shattered by the effects of disease.

The third essential in the dietetic treatment of the insane, is the administration of the selected food in such a manner as to avoid all unnecessary shocks; to promote, in fact, easy and rapid digestion, and to favor the speedy assimilation of digested food products by the tissues of the body.

In our experience, we have found that forced feeding may most readily be applied by the use of a soft rubber naso-stomach tube. This tube, as now used, was the invention of one of my former assistants, Dr. N. Emmons Paine, and is a modification, both in construction and use, of the soft rubber catheter of Nelaton. When this tube has been inserted through the nose, and passed on to the stomach, by a skilled physician or nurse, the food may be injected through it in required quantities by

^{*}Read before the Association of Medical Superintendents of American Institutions for the Insane at Washington, May, 1891,

means of an ordinary rubber syringe. Those who continue the administration of food through the old-fashioned stomach tube, prefer, as a rule, I believe, that the patient shall be in a sitting posture when fed; but when using Dr. Paine's soft rubber naso-stomach tube it seems preferable to have the patient lying on his back. In this supine position, the patient is less able to voluntarily regurgitate his food than when he is allowed to sit up. This is an important clinical fact, because many patients who need forced feeding are apt to acquire the habit of regurgitating food when they are thus fed. This they can do less easily when in a supine position than when sitting upright.

Now in addition to the method of forced feeding, to which we have alluded, we may state that in feeding indifferent or unwilling insane patients it is always wise to begin by coaxing and persuading the sick person in the gentlest and most tactful manner to accept food voluntarily, rather than have it forced into his stomach. Many a reluctant patient will eat when properly and persistently coaxed by a skillful and judicious nurse.

In addition to the nurse's missionary work of coaxing and persuading a patient to eat, we should always offer the food after it has been prepared as attractively as possible, and served with dainty delicacy. The refined air and the scrupulous neatness of a restaurant kept by a Delmonico should be assumed in the wards of every hospital, even when a glass of milk only is being served to an insane patient.

We come, now, to a consideration of the varieties of food best adapted to those depletions and exhaustions which precede and accompany mental and nervous diseases. Fothergill claims, judging from a physiological standpoint, and with the assumption that the pabulum of the nervous system is a "phosphorized fat," that "fish with butter should form a conspicuous factor in the dietary" of those suffering with neurosal affections. Dr. Fothergill asserts, likewise, that "fish is rich in phosphorus;" and again, "phosphorized fat has to be furnished to the nervous system." Now if phosphorus in fish were an essential in the treatment of brain and nerve disorders, then, by a most natural and conclusive logic, fish should be eaten only after it has been partially decomposed—that is, after it has passed into a decidedly gamey condition. For in this condition, arrived at by some process of molecular change and of

chemical re-formation, the amount of phosphorus in fish is perceptibly increased, as may be demonstrated by a casual olfactory inspection. While some rather inert and mentally inactive people (notably Laplanders) eat fish after it becomes gamey, such a diet seems unlikely to become popular or fashionable among American lunatics. The benefits to be derived from phosphorized fish (fish phosphorized by the influences of heat and sunlight) are not vet appreciated; and that they ever will be is, in some minds, the source of harrowing doubts. It seems strange that fish should ever have attained an exalted reputation as a brain food. Fish is peculiarly devoid of fat. Consequently, we cannot find in fish diet alone that which Fothergill deems an essential for the support of the nervous system—namely, "phosphorized fat;" nor is it certain that fish and fat when mixed produced a desirable form of nourishment for the brain. Those nations whose component subjects subsist largely upon fish, even when mingled with fatty substances, do not develop great brain power or mental activity. Hence, we must look elsewhere for food which will promote healthful brain action, and likewise assist in recuperating the brain and mind from the exhaustions of disease.

In the crucible of organized nature, we may find a food that is almost universally appropriate for nervous invalids. It is a food that raised up a Romulus for the founding of Rome; it is a food upon which the Cæsars fed until they arrived at the meat eating stage; it is a food upon which every babe is nourished until, impelled, very likely, by the doctrine of total depravity, it departs from the paths of healthful simplicity, and seeks to revel upon those pots of flesh for which Egypt became notorious in the history of the world. That food is milk; and whether it is taken from the paps of a willing wolf, or drawn from the sacred mounds of human motherhood, it is, when thus acquired, tempered by a judicious amount of animal heat. Dr. Clouston, in one of his annual reports, states that one of his nurses told him, as an observation, that when the old women in the Morningside asylum were freely supplied with heat and milk they rarely or never died.

The disrepute into which milk has sometimes fallen as an article of diet for either the sick or the well, has arisen from the fact, to a large extent, I believe, that it has often been

administered cold instead of warm. Coming from the ice-chest, or sipped from a glass filled with lumps of impure and deathdealing ice-and after being taken from the diseased cows-it has often been a dangerous diet for even the most healthy. When milk is taken cold it chills the weak stomach of the invalid; it curdles and forms indigestible lumps; and it ferments and brews putrescent gases in the intestines. But when pure milk—the "auriferous stream from lacteal dugs" of healthy cows—(cows kept on healthy food and pure water), is brought to a blood heat, or heated a little hotter than blood, and then administered to the worn and exhausted victim of mental and nervous disease, it becomes a bewitching elixir of life; and from it may be gathered such forces of healthful longevity as make it a sturdy rival of those waters of eternal youth which are hidden somewhere beyond the reach of even an optimistic and energetic Ponce de Leon.

Milk contains fat, sugar, caseous matter, hydrochlorate of potash, acetate of potash and phosphate of potash. It also contains lactic acid, a trace of lactate of iron, and earthy phosphates. All these have been dissolved in just so much water that, when properly heated, they form the best and most appropriate of all nerve foods. By the addition of salt—nature's best cathartic—the supposed dangers of constipation or "biliousness," so-called, by the use of milk, are almost entirely eliminated.

Blood contains water, albumen, fibrin, fatty substances, chloride of sodium, sulphate of potash, carbonate of potash, hydrochlorate of potash, carbonate of lime and magnesia, phosphate of soda, of lime, of magnesia, etc.

Hence you may readily see, by a comparison of the constituents of milk and blood, that in the former may be found the natural means for rejuvenating the latter when it is worn by the effects of disease, or wasted by hard toil or over-use.

Hot milk may, with almost absolute safety, form the daily diet and the midnight hypnotic of the mental invalid. Should such a food prove too rich in some individual case, then the milk may be diluted with lime water, clysmic or seltzer waters. Should the proportion of cream in good milk seem too large, then it may be reduced by a process of skimming. Thus the amount of fat to be administered to a given patient may be

regulated, by experience, to meet the actual necessities of each individual case. You may also enrich milk by the addition of cream, when necessary, for the better nourishment of emaciated cases.

Cold milk not only chills the stomach of a weak invalid, producing indigestion, nausea, regurgitation, and accumulations of gas in the stomach and bowels, but this inflation of the intestines by gas produces pressure upon the portal circulation, and consequent localized congestions of the blood, and inequalities and hindrances of distribution of the vital fluid throughout the body. Hot milk, on the contrary, favors digestion and assimilation, and prevents, to a very large extent, the evils of cold milk to which we have referred.

Hot milk digests readily in about two hours, or less. An exhausted invalid should take food in moderate quantities, in order to avoid overtaxing the powers of a weakened stomach, and after each ingestion of food the organs of digestion should be allowed to do their work fully; after which a brief period of rest should be enjoyed. But this rest should not be long continued, for, if it is, then exhaustion of the patient, through interruption of the currents of nutrition, speedily follows. After many experiments, we have concluded that a weak insane person should be fed once every three hours, from six o'clock in the morning till nine o'clock at night, and if the patient is sleepless during the night, then the food may be continued every three or four hours throughout the entire night and day. With such food, administered in the manner suggested, we have noted a rapid recuperation, both physically and mentally, of many patients who upon an ordinary hospital diet would have speedily died. While a milk diet is being administered, the patient may, if he craves solid food, be treated two or three times a day to a slice of toasted stale bread of such variety as he may select—that is, either white bread or Graham bread, or rve bread.

In addition to milk, carefully prepared and moderately cooked beef-tea may be administered in conjunction with the milk as a healthful stimulant. After the patient has, by the use of a hot liquid diet, fleshed somewhat beyond his normal weight, then he may be allowed solid food, consisting largely of the various native and imported grains, together with vegetables and fruits,

and a very moderate supply of meats. As a rule, very nervous patients should avoid lean meats, as they stimulate and irritate without increasing the strength of those who, while in an exhausted and irritable condition, eat them.

With the grain foods there may be given an abundance of fresh butter or ripened cheese, or both. Butter and cheese are simply the concentrated products of milk, and they are, therefore, to be reckoned among the best articles of nutrition for the human body.

Raw or rare cooked eggs go well with milk; and fat bacon, or fat spring lamb, with baked potatoes, form excellent additions to the dietary in the permanent recovery of the convalescent insane.

After a long continued course of hot milk treatment, it will be observed that the patient, as a rule, has increased, and in some cases quite remarkably, in weight; and also the tone and elasticity of the mind are encouragingly improved. But this increase in avoirdupois consists largely of soft and unmuscular The nervous system floats upon a new sea of phosphorized fat; while the mind, freed from the cares of disease, soars aloft to Elvsian fields of happiness like the lark in the morning. The pains and discouragements of body and mind have passed away, but while in this delectable state, and before resuming the arduous duties of life, the patient must have a new supply, or a rejuvenation of muscle tissues. This final and desirable end may be attained by the substitution of grain foods and substantial vegetables for the liquid diet; or the liquids may be continued, and carefully selected solid foods may be added to them.

By such a primary or secondary, or combined course of dietetics, the nervous systems of mental invalids are "renewed like the eagle's;" and also by the renewal of a moderate daily exercise, in conjunction with solid diet, the muscle tissues become strong again, and ready for active use in the customary walks of life.

Above all things, the quality of the food given to the insane should be of the best, and its preparation for consumption should be made the anxious care of a mother, the delicate tact of a sister, and the scientific skill of an accomplished *chef*. Those who prepare food for the use of human beings should be

earnest students of physiological effects, as well as adepts in the æsthetics of cookery. The attainment of desired results in the preparation and administration of food for and to both the sick and the well, is a lofty and growing ideal. Just here, by way of episode and conclusion, we may assert that mental and nervous invalids cannot properly be fed, and nursed, and physicked, for much less than five dollars per week; and yet there are those who, in the innocence of blissful ignorance, believe that such an end may be attained by the expenditure of \$2.50 per week on each helpless unfortunate, or protracted case of lunacy.

The first requisite in State care for the insane, is a properly trained nurse. Such a nurse will cost the hospital, if she is decently paid for her services, and decently fed and cared for, at least thirteen dollars per week—this means eight dollars per week for salary, and five dollars per week for board and washing, and comfortably furnished, warmed, and lighted room. A trained nurse may care for about ten patients. The incone from ten patients at two dollars and fifty cents per week each, will be twenty-five dollars. Subtracting thirteen dollars from these twenty-five dollars—thirteen dollars for the nurse's wages and board—and we have twelve dollars left for the care of ten patients, or one dollar and twenty cents per week each. This sum is supposed to furnish nourishing and recuperating food; a comfortable bed and bedding; an abundance of water, hot and cold, for bathing and for washing clothes; soft, comfortable wearing apparel, of such texture as may delight the eve of the invalid, and keep from his body every unfavorable and unfriendly breath of chilling air. In addition to furnishing food and raiment, bed and bedding, clothes and washing, to each patient for one dollar and twenty cents per week, all broken ware and furniture, destroyed by those who are reckless or careless, must be replaced from this same pittance; and in addition to all these already mentioned drafts upon the resources of one dollar and twenty cents, the patient must be supplied with light, and heat, and amusement, and occupation, and Christian consolation in the hour of deep despair. All these things may be and must be furnished, in the opinion of the philosopher and philanthropist, for the sum of one dollar and twenty cents per week for each case. We admit that heat and milk, plain bedding and a cheap nightshirt, may possibly be furnished for the sum named; but when

the time for solid food arrives, and for neat, substantial clothes, such as would seem appropriate for a Christian's back when he appears in public, then there must be either manna and wool from Heaven, or else the incurrence, by the hospital authorities, of a deep, deplorable, and damnable debt.

I believe that the American Association of Medical Superintendents should declare itself in favor of a generous and effective dietary for the insane, even though it costs much money. This dietary should be of the best quality; it should be prepared and administered upon scientific principles; and it should be bestowed in the most intelligent and bountiful manner. This diet should be administered by skilled nurses; and with diet and nursing should go such an array of garments as may satisfy and gratify the normal pride of the average human being.

When skilled nurses, and proper diet, and good clothing, and appropriate surroundings, and healthful amusements, are furnished by the State, in accordance with the tastes and necessities of each and every victim of insanity, without limitation of class or condition, then we shall have such a variety of State care for the insane as will redound to the credit of the various Commonwealths, and promote the recovery of the largest possible proportion of the insane. When this end shall have been accomplished in a rational and reasonable manner, then we shall not be obliged to blush with shame, on account of the inadequacy of our resources, whenever the subject of State care for the insane is mentioned.

## MUSIC IN ITS RELATION TO THE MIND.*

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The important part played by the nervous system in all diseases to which human flesh is heir is so well recognized and appreciated as to make natural and equally important the attempt on the part of man, and especially the medical man, to reach and operate upon that nervous system for the relief and cure of disease. It is oftentimes through the medium of the senses alone that medical science attempts to produce its effects in brain and nervous diseases. Advantage is taken in therapeutics of the sense of taste, and with equal frequency that of touch is called into play in the healing art through the instrumentality of the skin, its rich nervous supply affording a ready means of access to the central system. It is only necessary to mention, in this connection, electricity in its manifold applications, and the salutary influence of heat and cold in sundry affections. Again, mental or nervous excitement may be provoked or calmed through the sense of smell by means of ethereal substances; and but a few years have elapsed since the public, fairly crazed with what seemed to be the greatest discovery of the age, sought self-medication by appealing to the sense of sight with the assistance of colored glass. It was then alleged, with some semblance of credibility, that even diseases of the brain could be cured by subjecting the patient to the healing influence of the sun's rays as transmitted through glass of various hues, and what was called, in high sounding phrase, "the photochromatic treatment of insanity" gained several fanatical followers.

It would seem, however, that the sense of hearing has not been appreciated by physicians, in the treatment of disease in due proportion to its availability as a factor in treatment, for the influence of sound upon the nervous system surely offers no barren field to the investigator in this direction.

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"Give me some Music, Now, good Cæsario, but that piece of song, That old and antique song we heard last night; Methought it did relieve my passion much."

But susceptibility to auditory impressions as received and collated in the brain—in other words, susceptibility to the influence of music—varies greatly. It is well known that there are those who are hopelessly without taste for music, and who may never acquire it. In these cases there would seem to be a congenital defect in the brain centres devoted to music, if such there be.

"Speech," says Broussais, "is heard and repeated of all men who are not deprived of their auditory sense, because they are all endowed with cerebral organization fit to procure for them distinct ideas upon the subject. Music, when viewed as a mere noise, is also heard by everyone, but it furnishes ideas sufficiently clear to be reproduced, to those only whose individual frames are organized in a manner adapted to this kind of sensation."

In justice to those who are not keenly sensitive to musical impressions—I might almost say in self-defence—I mention these physiological facts in passing to refute the opinion, prevalent especially among musicians themselves, that the want of the musical faculty, or of the musical taste, is an evidence of mental or moral inferiority.

We are too apt to take it for granted that in all matters philosophical Shakspere's *ipse dixit* constituted the last word, and perhaps the bard has done much to perpetuate this heresy about music by his lines:

"The man that hath not music in himsel?,
Nor is not moved with concord of sweet sounds,
Is fit for treasons, stratagens and spoils;
The motions of his spirit are dull as night,
And his affections dark as Erebus—
Let no such man be trusted."

And Beattie's picture of such a man is yet more doleful:

"Is there a heart that music cannot melt?
Alas! how is that rugged heart forlorn;
Is there who ne'er those mystic transports felt
Of solitude and melancholy born!
He needs not now the muse; he is her scorn.
The sophist's rope of cobweb he shall twine,
Mope o'er the schoolman's page; or mourn,
And delve for life in mammon's dirty mine,
Sneak with the scoundrel fox, or grunt with glutton swine."

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The ear may be perfect in every other respect and yet be deaf to certain notes, just as the eye may be perfect in every other way and yet be color blind.

There are ears that seem to have no defect in the general capacity of receiving sound or in the perception of musical tones, but are insensible to very acute sounds. This insensibility commences when the vibrations have attained a certain degree of rapidity beyond which all sounds are inaudible. Thus some persons cannot hear the chirp of the grasshopper; others the cry of the bat; and a case is on record in which the note of the sparrow was inaudible. I know a lady in Utica with whom, under ordinary circumstances, it is very difficult for me to carry on a conversation even at the top of my lungs, but let me talk to her while rattling over the cobblestone pavements of that city in a carriage, when the noise is so deafening sometimes as to make my voice almost inaudible to my own ears, and she hears without any difficulty.

As an analogous case I find recorded that of a shoemaker who had to strike continuously upon his stone while talking to his son, who was affected with deafness; and of a man—surely a very devoted husband—who had to keep a servant in the room beating a drum to enable his wife to hear his conversation.

We read in Boswell's Life of Johnson the following conversation as showing how insusceptible the great philosopher was to musical impressions:

"In the evening our gentleman farmer and two others entertained themselves and the company with a great number of tunes on the fiddle. Johnson desired to have 'Let ambition fire thy mind' played over again, and appeared to give a patient attention to it; though he owned to me that he was very insensible to the power of music. I (Boswell) told him that it affected me to such a degree as often to agitate my nerves painfully, producing in my mind alternate sensations of pathetic dejection, so that I was ready to shed tears; and of daring resolution, so that I was inclined to rush into the thickest part of the battle. Sir, said he (Johnson) I should never hear it, if it made me such a fool."

With this comforting apology for those in my audience who, though they may not be very musical, are yet great men and great women, I proceed to speak of a few of the applications of music in every day life.

According to its quality music has an animating or lulling effect upon the invalid listener. It gives courage to the patient and fills the convalescent with joyous hope of speedy restoration, and all physicians can attest by actual experience the truth of the common observation that a sick man who sings is on the high road to recovery. More frequent still is the demonstration of music's spells in the nursery. Everybody knows-blessed knowledge too to those of us who have been married but a few years-how easily a crying babe may be quieted by a nurse's singing and lulled to sleep. Even a rhythmical tattoo with little sound will sometimes produce the desired effect. The mechanic's work becomes easier and the ploughman's less toilsome when performed to their own musical accompaniment. Neither can it be doubted that the peculiar music of sailors as they haul on the ropes of their vessel has its effect in lightening irksome labor. Our southern brethren will bear me out in the observation that negroes perform their appointed tasks with greater patience by reason of the inspiriting effect of their rollicking melodies. No festival can be properly celebrated without music, and the pleasures of the board are infinitely brightened by the strains of an orchestra or lively song. To dance without music is to rob the exercise of all its zest, and in this connection one has but to put one's fingers in one's ears and watch a ball in progress to convert the ball-room for the nonce into a scene of Bacchanalian revelry or the mostdisturbed ward of an insane asylum. In times of war as well as in the piping times of peace music exerts its helpful influence on the mind, and the soldier goes forth to battle oblivious of all danger and eager for the fray.

At the battle of Quebec, April, 1760, the Scotch troops were retiring in the greatest disorder when the musicians were ordered to strike up their favorite airs. The flight was at once arrested and the soldiers pressed on to battle. Every one knows how during the civil war courage was inspired by the military music of the contending forces. Certain simple melodies of the Swiss mountaineers, commonly played on the Alpine horn and known as the ranz des vaches, so strongly affected Swiss soldiers as to cause them to desert and flee to their homes. So frequent and disastrous became such desertion that the airs were forbidden in the army under pain of death.

It is well known too that by the sweet spell of music the pangs of death itself can be made to disappear. Franz Rocco, who, in the French war of 1806, was sentenced to death in Würtemburg, played gaily on a jewsharp as he strode to execution. It is related that when death had laid his finger on the sensitive, restless and highly poetic Chopin, and the composer was suffering violent pain, he summoned to his bedside his friend, the Countess Potocka, to assuage his death agony by her melodious voice. The heartbroken singer obeyed the master—the dying man came under her spell—he forgot his torment and fell asleep with a feeling of inmost gratitude to the wonderful soother.

Instances like the above might be multiplied indefinitely were I not afraid of becoming wearisome. But not only on man but upon the lower animals also does the power of music make itself felt. The camel in the desert and the horse on the field of battle go forth with greater courage and resolution to the music of drum and bugle. Lizards, serpents, elephants and other animals become tame under its magic influence. Prisoners tell of rats, mice, spiders, &c., whose friendship has been gained through music, and the legend of the Pied Piper of Hamelin is too well known to be recalled to this audience:

"And, please your honors," said he, "I'm able,
By means of a secret charm to draw
All creatures living beneath the sun,
That creep or swim or fly or run,
After me so as you never saw!
And I chiefly use my charm
On creatures that do people harm,
The mole, the toad, the newt, the viper;
And people call me the Pied Piper."

But the effect of music upon man varies much with the constitutional temperament and degree of culture possessed by the individual. As a general rule savage tribes, to whom, as has been well said, music is calomel and quinine and a whole pharmacopæia, enjoy a rude music that would drive us to despair. From Homer we learn of the love of the ancient Greeks for wild weird song. Of Peter the Great it is asserted that he could not tolerate French and Italian music, and a still worse taste was displayed by Louis XI.

As to the precise manner in which music produces its wonderful effects it is difficult and indeed impossible to determine. There are so many factors in an analysis of music that it is out of the question to ascribe a definite value to each in any such estimate. Whether it be the rhythm, the time, the melody, or the harmony or what not, or all combined, that accomplishes the object matters little, however. We know that rhythm must have a distinct utilitarian value in the work of the blacksmiths as, under the spreading chestnut tree or elsewhere, they ply their hammers in unison. Similarly, a college crew is soon made to realize the resources of rhythm, while it enters manifestly as an important factor in the old-fashioned threshing with hand flails. Again the time of a march often compels us to keep step with the music on nights of torchlight processions and campaign fanfaronnades.

Weber relates an amusing instance of the changeful effects of tempo as applied to manual labor. It appears that a London tailor noticed that his patriotic apprentices were fond of working to the slow time of "God save the Queen," very much to the detriment of his business. He therefore hit upon the crafty expedient of prescribing a livelier air, and at once observed the quickening effect of the music upon their needles. Not long ago I read in one of our papers that a boss carpenter somewhere hereabouts invariably asked would-be workers under him if they whistled as they plied the plane or saw. If they replied in the affirmative, he bade them whistle their favorite air, when, in the event of a preference on their part for a slow tune, it was "all up" with them, while "Yankee Doodle" furnished an immediate passport to the bench. We all know the effect upon us of such music as the "Dead March in Saul;" and modern funeral music, affording its luxury of woe in a hidden corner of the house, is often more thoroughly enjoyed by the mourners than the funeral sermon itself.

The effect of music varies much according to the medium used. While drum and bugle inspire courage, they may also give rise to sorrowful impressions. The celebrated æsthete Lemcke characterized musical instruments in the following manner: The flute is placid; the clarinet is sensuous; the hautboy is nervous; the violin resembles an emotional woman—it rejoices, sighs and weeps and makes its voice heard first, last and all the

time. Earnest, melancholy even woesome is the violoncello; it becomes funny when it attempts a jest and represents man. The bass viol is quiet and dignified in its deportment; indisposed to any kind of frivolity, its utterance is important, powerful under excitement and full of solemn threat in anger. It represents the type of mature age. The strains of the harmonica fill the heart with a nameless longing; and nothing produces more profound emotion than the now swelling now melting tones of the æolian harp with its weird unearthly effects. But king of all as regards its influence on the mind is the organ. It has a peculiar charm of its own whether in its softest or most thundering tones. Thus it happens that so many and such varied sensations may be evoked through its instrumentalityindeed, every emotion from the mildest to the most violent is susceptible of expression on the organ, and it stands unrivalled as an imitator of natural phenomena. It is related of the German organist Vogler that he was able to imitate so closely upon his instrument the effect of rain that the men in his audience instinctively put on their hats and the women spread their handkerchiefs over their bonnets; and so faithfully is he said to have produced upon his hearers the effect of thunder as to elicit on all sides the exclamation "Gott wenn es nur nicht einschlägt!" in intimation of a fear that lightning might strike the building. Remarkable as these performances were, it was reserved, I believe, for an American artist to so usurp the powers of electrical phenomena through the medium of his organ as to cause all the milk for miles around to turn sour.

The most powerful and most complete musical instrument is the human voice, so far as its effects upon one's fellow men are concerned. Nothing can so affect one's emotions as the immediate action of man's voice upon man, whether that influence be exerted by speech or song. There is something in the quality of the human voice itself that may rivet attention and enlist sympathy, or on the other hand be of a nature to distract and repel. How frequently indeed does it happen that even the lower animals will heed the voice of one man and be driven forth by another. How often too does it come to pass that the voice makes ample atonement for the poverty of a discourse, while on the other hand the most brilliant lecturer often fails to gain a hold upon an audience if his delivery be in quality totally

disproportionate to the wealth of his ideas. It is safe to infer that the famous preachers of the world were all pleasant talkers, and that the traditional old lady who brought home the solitary word "Mesopotamia" as the only registered fact in memory after what she termed a "b-c-a-u-t-i-f-u-l" sermon, had been inveigled into the hopeless confusion of shadow with substance in her homely estimate of what constituted beauty in discourse by the mellifluous voice of her spiritual guide.

It follows then from all we have said that music must have a powerful effect upon the nervous system, and that asylums for the insane offer a natural sphere for its beneficial effects upon disease.

To the asylums of France is due the credit of having first introduced music as a regular feature in the course of treatment. At the hospital for the insane near Rouen, an attempt was made early in its history to organize a band of music and chorus, and so successful did it prove that the good example was followed by numerous other institutions, not only in France, but elsewhere on the Continent. In more recent times a distinguished French scientist has attempted a new application of the theory of the transformation of mechanical movement into psychological and psychical movement, with a view to employing music as a means of curing or alleviating diseases of body and mind. He attempts an ingenious scientific explanation of the general influence of music on the development and functional play of the moral and intellectual faculties, and on the physiological state of individuals. This general influence may be decomposed into specific influences, and the following results are arrived at: There is, first, a music which acts specially on the intelligence and on the motor nerves; secondly, a music which acts specially on the nerves of sensibility and on the sentiments; thirdly, a music which acts all at once on the motor nerves and on the sensory nerves, on the intelligence and on the sentiments-this in general being the action which most frequently occurs. This enthusiast goes to the extent, even, of believing that he has discovered, between the effects of music and the nutrition of the nervous system, such analogies that the laws which regulate the one and the other might be formulated in the same terms. Nay, further, we might establish a method in hygiene, in medicine and the moral sphere, of profiting by these specific influences,

above all in the treatment of mental nervous affections, making allowance, of course, for individual idiosyncrasies. In short, music is an agent at once psychical and therapeutical, capable of performing a considerable part in the phenomena of life, and the employment of which is susceptible of application according to precise rules based upon scientific principles.

Still higher ground has been taken in Sweden in an analysis of the music of the heart itself. Many a time have the sensitive chords of hearts attuned to sympathy vibrated beneath the touch of pity, and often made glad tempestuous music within the joyful breast. But all this belongs to the readers of poetry, and scarcely consists with cold scientific fact. And yet it is claimed that the heart has its own music, and a melomaniac, a man named Rhuders, a Swedish physician, claims to have harmonized the gentle conceits of poetry with the dull records of physiology. He has noted down in the language of "crotchets and quavers" the beatings of the palpitating heart of a woman in one of the hospitals of Upsal. The composition is said to resemble a somewhat irregular waltz, d deux temps, and, as the chronicler gravely remarks, it constitutes one of the most remarkable pathological curiosities of the day. It is suggested that this may lead in time to the initiation of a new system of drawing-room pathology, and ladies may have occasion some day to call a Thomas or a Strauss to note down in chords the sounds of their beating hearts, and enable them, swan-like, to fade in music.

And here I am forcibly reminded of the "Anatomist's Address to His Adored One," as having special bearing upon this heart music:

I list as thy heart and ascending aorta
Their volumes of valvular harmony pour,
And my soul from their muscular music has caught a
New life 'midst its dead anatomical lore.

Oh, rare is the sound of thy ventricles' throb In a systolic symphony measured and slow, When the auricles answer with rhythmical sob, As they murmur a melody wondrously low.

Oh, sweet is thy voice as it sighingly swells
'Neath the daintily quivering chordæ vocales,
Or rings in clear tones through the echoing cells
Of the Antrum, th'Ethmoid and Sinus frontales.

In America, some interesting experiments were conducted in one of New York City Lunatic Asylums, Randall's Island, eleven years ago, and the claim was made that several of the patients were greatly benefited. From the reports made at the time it appears that cantabile music had an effect similar to that which it exercises upon certain animals, the person being disposed to lie down and go to sleep under its influence. It does not appear, however, that this was anything more than a spasmodic attempt to introduce music into the institution as a systematic part of the moral treatment.

While my own enthusiasm as regards music does not exalt it into an agent per se of cure in disease, I believe it to be decidedly beneficial in a variety of cases. My attention was first called to the value of music as mind medicine at the Utica State Hospital by the persistent search on our premises by twovillainous looking gentlemen from sunny Italy for such eleemosynary nickels as might fall from grated windows in substantial recognition of a musical reminder from a badly demoralized hand-organ of the better fate that was in store for our unfortunate patients in the "Sweet Bye-and-Bye." Maddened myself by the dismal screech of the instrument, I had the hardness of heart and temerity to drive the pestiferous players forth, and away they went in dudgeon, muttering Italian curses between their teeth. Later in the day one of the employés of the asylum chanced to see these men basking in the sun while munching their mid-day meal. He was recognized by the grimmer of the bandits, who at once arose, and opening a drawer in his hand-organ, displayed a large-sized revolver and a blood-thirsty knife. He eked out his broken English by violent gesture, and passing his lank fingers deftly across his throat, intimated with significant emphasis a lurking desire to shoot and behead the offending official who an hour ago had taken bread out of a hungry mouth, and declined with thanks to be told mechanically of the "land that is brighter than day." Full of alarm the employé aforesaid hastened to announce my impending assassination, and to afford me much-needed time to prepare for the "Father that lives over the way." I confess that the narration of the awesome incident somewhat alarmed me, and for some time thereafter I was on the alert by night and by day when out of doors. With the returning season of

Italian street opera, my two friends appeared once more. Then it was that I realized more than ever before how important a part discretion plays in valor, and how strong in my own case was that instinct which Dr. Bucke tells us shall not be accepted as a criterion of sanity. At once the hard-hearted despot of the previous season became

Generous as spring dews that bless the glad ground, And courteous as monarch the morn he is crowned.

I insisted that the Italian artists should partake of the hospitalities of the house, and in the language of Cook's tourists' circulars, I "personally conducted" them. First they played in the exercising ground for disturbed women—when, by the bye, it became their turn to exhibit fear-and it was remarkable to witness the almost instantaneous effect of the simple music on the patients there assembled. These women became at once less boisterous, and were all evidently interested in and diverted by the impromptu entertainment. From this yard the distracting players entered some of the wards, and here again the salutary effect of music was made apparent, though it was amusing to see one of the men, evidently not realizing the precise character of the institution, pass round his hat from patient to patient in vain appeal for bounty. Largess was duly provided elsewhere, however; and I had thus demonstrated to my satisfaction, the fact that we possess in music a power over the insane that might be turned to good account by simple means, while, what to me personally was vastly more important, I had made my peace with a would-be assassin by the payment of a modest ransom. This was the beginning of a systematic use of music at the hospital, and soon led to the formation of an orchestra.

By advertising in the New York papers, and especially the great German daily, for musicians willing to act as attendants upon the insane, I was able to enroll an army of candidates, and pick out my men at a given rendezvous in the city. By this means it was not difficult to get together able-bodied young men, competent alike as attendants and members of an orchestra. The candidates had not been long enough in the country to become members of the union, and were glad to accept situations at ordinary rates of compensation. Attendants with musical ability were engaged in preference to others. One of

the first departures was to substitute for the bell in the courtyard clanging the announcement of meals and the hours for quitting and resuming work, the melodious bugle calls of the army. On evenings of entertainment, and especially when the regular weekly dance is given, the musicians do much to enliven the audience and dancers and non-dancers alike. Again, concerts are given in different wards during the week, and especially in those in which cases of acute melancholia are received and cared for.

In this class of cases music gives promise of having a distinct value. It would not be true to allege instances of wonderful cure by music alone, such as may be found scattered here and there through the literature of mental medicine. There is always ample room in treatment of any kind for the argument post hoc ergo prepter hoc, and always a disposition to ignore the awkward question, Would the patient have recovered, thanks to the healing forces of nature, without your interference?

The interdependence of treatment and causation goes without saying in all diseases; and as it is difficult or impossible to assign a single factor as having produced a certain morbid result, because disease, and especially insanity, is usually due to a conspiracy of conditions, so likewise in treating that disorder credit must not be given in successful medication to one thing only, but to all the resources of our art combined that may have been brought to bear in a given case. Thus, it is impossible to measure the precise value of music in our armamentarium. It cannot be placed on a par with drugs in this respect, and one must be content to speak of its therapeutic value in mere general terms. It were as reasonable to expect a definite statement as to the value of theatrical entertainments, of dances, of athletic sports, of reading, of looking at pictures that please the eye, and of the thousand and one things that comprise what is generally known as moral treatment in hospitals for the insane, and which affect the body favorably through the mind and nervous system. We do know that for the moment attention is diverted from self to the orchestra, and that in so far morbid self-introspection can be checked. We know that through the nervous system the heart beats faster and the circulation is quickened, and that in so far the functions of the body are stimulated to greater activity. Similarly,

respiratory movement may be accelerated and the blood subjected to follow aëration. In these and other ways it may be claimed that music is helpful in the treatment of insanity, and one is inclined to be speak for it greater consideration, as one of the readily available appurtenances of an asylum, than has heretofore been vouchsafed by the craft. Our own experience has been most gratifying in exciting interest and allaying irritation. The patients are evidently influenced for good in the majority of cases, and take an intelligent interest in the ward concerts provided for them. Inmates of other wards beg the privilege of going to the one in which the orchestra is performing, and many express gratitude for the relief that the music affords them.

Cases recorded in the literature of psychiatry are not few where the cure by music has bordered on the miraculous. In nearly all of them there is an undercurrent of sensationalism and a flavor of romance such as to suggest that the enthusiast has attained his end by fabricating facts where stern clinical reality failed to supply them in sufficient measure to suit his fancy. Ancient history furnishes a large share of these cases.

"And it came to pass when the evil spirit from God was upon Saul, that David took a harp and played with his hand; so Saul was refreshed and was well, and the evil spirit departed from him."

Of Pythagoras, who was the father of music as a mathematical science, it is related that he not only loved music, but had recourse to its powers to relieve mental strain in himself and his followers, as well as to encourage the reflective mood. Through music he induced in himself and his pupils the loftiest perceptions, curbed all froward passion and encouraged virtuous resolve. Indeed, he referred the origin of melody to the gambols of the spheres. "Next to theology," said the mirth-loving Luther, "I give the highest place to music, for thereby anger is forgotten; the devil, also melancholy and many tribulations and evil thoughts are driven away."

It is best to refrain from detailed reference here to the more or less apocryphal instances of relief afforded in the cases of such personages as Haroun al Raschid, Philip of Spain, the bandits sent to capture Alessandro Stradella, and the Hungarian count who was charmed into recovery by Mara. Certain it is, that no such sensational cures have been brought about in our own hospital, and we are indisposed to magnify the effect of music per se as a curative agent. Yet our experience accords with that of other observers who would place music in that group of natural recreative forces which are active in every healthy life, and which operate against the morbid weakness of any part by increasing the vigor of the whole.

It is to be borne in mind that there is constantly occurring in the organism an appropriation of external impressions by the brain which goes on unconsciously. "As the various organs of the body," says Maudsley, " "obtain from the blood the material suitable to their nourishment and assimilate it, so the organ of the mind unconsciously appropriates, through the inlets of the senses, the influences of its surroundings." And thus the nature of the mind may be permanently affected by these unconscious processes. The varying manner in which music affects some persons, producing a lively feeling of immediate pleasure, calming mental agitation and exalting the mental tone, and thereby indirectly much affecting mental activity, is adduced Maudsley as an excellent example of a marked effect upon the psychical tone by physical agency. Indeed, he goes further in his recognition of the corporeal nature of the process, holding that such sentiments as the love of wife and children are not so much definite emotions as a general tone of feeling resulting from certain relations in life, and that they represent a mental state in which ideas in harmony with a given tone of mind will he attended with a pleasant emotion and discordant ideas with a painful emotion, precisely as harmony in music produces pleasure and discord pain. Resolved into simple terms, the proposition is this: the effect of music has much to do with the tone of mind engendered by it. And that the mental tone of an individual has much to do with his power of resistance when disease overtakes him, goes without saying. Faith-cures and other humbugs furnish ample evidence of this fact.

In briefly summarizing the results of experience in concluding this desultory compilation, I would say that we have in music an element of moral treatment that we cannot afford to neglect. It is within the reach of all hospitals for the insane to provide systematic musical entertainments for its patients. Some,

^{*}The Physiology of Mind, p. 24.

despising the day of small things, may not think the swift hard precision of a mechanical piano, with its arrangements of musichall songs, such as "Down Went McGinty," or an Indian brass band at Niagara Falls, is music. Yet the admiration for them is the same emotion as is evoked, though with more critical reservations, from the cultured at a Thomas concert. One can forgive the ear splitting music of the street when one sees as we have seen from these windows the marching and dancing of the children. Similarly, one can adapt the music of the hospital to the varying tastes and moods of those for whose benefit it is discoursed, and contribute, I am convinced, in no small degree to the well-being and recovery of our patients.

Music, all powerful o'er the human mind, Can still each mental storm, each tumult calm, Soothe anxious care on sleepless couch reclined And e'en fierce anger's furious rage disarm.

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## THE SEMINARY METHOD IN ASYLUM AND HOSPITAL WORK.*

BY EDWARD COWLES, M. D., Superintendent of the McLean Asylum, Somerville, Mass.

The purpose of this paper is to give an account of an attempt at the McLean Asylum to adapt what is known as "the Seminary method" to the systematic study of medical and psychological subjects in their relation to the care and treatment of the insane.

In 1889 a new laboratory was opened for pathological work and for experimental research in physiological-psychology, in the hope of ultimately adapting its methods to clinical and diagnostic uses. The object was to bring together with the experimental work in the laboratory the clinical work of the asylum wards, and studies in the literature of the subjects investigated. For the latter purpose, instead of the usual procedures of a medical society, a "Psychological Seminary" was organized by the medical officers of the asylum, including four physicians and three house-pupils,—seven in all; and meetings were held nearly every week on a stated evening. At the first meeting a paper was read by the writer describing the "Seminary Method," and the following extracts are taken from the records.

"The 'Seminary' is a term applied to an organized method of study of scientific and literary subjects. It is comparatively new in this country, but in recent years it has been extensively introduced in American universities. It was originally the contrivance of Von Ranke, in Germany, for training a school of professional historians. It is now generally recognized as the best device for accomplishing the results of original study in other lines of investigation. The 'Seminary' is itself a laboratory where the beginner may acquire methods, and where the advanced student may do work which shall contribute to the

^{*}The first of these two articles was prepared for the occasion on which it was read: it was followed by a contribution to the discussion which has been extended, by request, to make the second article; and they are published together as pertaining to one subject.

^{*}Read at the Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, Washington, April 29, 1891.

sum of human knowledge. It may be employed wherever inductive logic is applicable; the study of psychology must proceed after the method of observation and induction,—by reasoning to general truths from many particulars. It is the natural method, by which the sciences have long been taught by laboratory study; and for the present purpose it is the application of the scientific method to the study of psychology. Our purpose is, therefore, not only the gaining of knowledge, but at the same time the adoption of a method of study, which includes the art of systematic and comprehensive investigation of all knowledge upon a given topic.

"The work of a seminary aims at being original; and in order to do original work upon any subject a survey must first be made of the literature of it as a basis from which to push investigations further.

"An essential part of the equipment for such work is a reference library. Hence the value of our special library even with its small collection of books; it is already capable of being very helpful toward giving us the bibliography, and the sum of present knowledge of the subjects we shall study.

"The 'seminary method' is coöperative and multiplies the capacity of the single investigator, giving each member the benefit of what all can contribute. It not only multiplies acquisition by the saving of time, but there is a special gain in interest, and clearness of the conclusions reached through the freedom of the inquiry and discussion peculiar to the method.

"There are two distinct lines of work:

"1st. The preparation of a large subject which shall teach the student to get speedily a grasp of many details in a limited time.

"2d. The preparation of a carefully wrought thesis on a smaller topic where the object shall be the most perfect work based on a knowledge of the whole literature.

"Upon the basis of a general subject, each student may take a special minor topic for investigation. In appropriate cases these minor studies may be presented in the Seminary in such an order as to trace a historical or a logical development of the main subject.

"At first we may take up subjects that come readiest to hand, in the lines of neurological and mental science. Later,

the special subjects may be chosen, in which all may join by the assignment of the minor topics to individuals. Thus several successive readings may be devoted to covering the field of such allied subjects as 'aphasia' and 'hallucinations.' Again we may take up the theory of 'specific energy of nerves;' or again the theory of 'the storage of nervous energy;' and that of the 'dissolution of the nervous system,' of Hughlings Jackson.

"The experiments begun here last year, by Dr. Noyes, in testing the knee-jerk phenomena in much demented persons, offer possibly the condition of eliminating, to a greater or less degree, the influence of the attention which has been found to introduce so much fallacy in all previous experiments of this kind. The direct relation also of the attention to reaction-time, and its weakening in nervous fatigue and exhaustion, in the sane and the insane is a subject of great clinical importance.

"Among the first subjects we shall take up, will be that of the physiology of bodily exercise. This will be an instructive study in its direct relation to the applied physiology of the work now going on in the training of our nurses in gymnastics, as a means of applying the principles of physical exercise to therapeutic uses for our patients.

"It will be found that this subject leads directly into the field of the physiology of the nervous system, and will come in touch with the very subjects that now most invite our attention as leading to new investigations.

"In fine, it may be said, that, at whatever point we may enter the field of investigation, we shall find that point to be a good centre from which to proceed along many lines of inquiry, all of which are so allied that light gained from one will aid in the elucidation of others. Moreover it cannot fail to come to pass that all our clinical work will gain increased interest to ourselves, and value to our patients, through our being better informed with the more precise knowledge of the vital principles with which we have to deal.

"To preserve the data of our Seminary work, and to give it dignity and efficient continuity, some formality will be maintained in the conduct of these meetings. A record will be kept of the proceedings, giving brief abstracts of the matters presented,—the argument and conclusions,—and with special care

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in noting all references to the bibliography of the subjects. Important translations from other languages may be entered entire. Abstracts of discussions will be given.

"While there will be all due formality in these procedures, there will be much informality and freedom in our discussions. This will give the peculiar and lively interest of the 'seminary method' that will make our work most successful. The discussions may be conversational on occasions, and it will be in order to ask questions of a reader at any time. The best results will come if each one will 'stand off and tight' in defense of his opinions when occasion gives him, in his belief, a good cause.

"The duties of a Secretary are assigned to the Pathologist, upon whom will rest the responsibility of forecasting the work of the Seminary, suggesting and arranging topics for study and discussion, assisting in investigations, and keeping up these records in good form, with the assistance of the house-pupil in the laboratory department."

A better idea can be given of the results of this experiment, and of the way we have learned to conduct the Seminary work, by presenting here the following list of subjects:—

Subjects discussed in the Seminary-Winter of 1889-90:

- 1. Bell's disease,—grave delirium.
- 2. Pathology of grave delirium and acute mania.
- 3. Physiology of bodily exercise. (Two meetings).
- 4. Jacksonian epilepsy. (Two meetings).
- 5. Jackson's theory of epilepsy and automatic action.
- 6. Jackson's theory of the evolution and dissolution of the nervous system.
- 7. The specific energy of nerves.
- 8. Katatonia.
- 9. Paranoia,—a history and tabular view.
- 10. Acute Paranoia.
- 11. Wahnsinn.
- 12. The genesis of delusions.

In this series of subjects much interest arose from the fact that one suggested another, and with most of them we were led by consecutive steps through a connected series of studies. For example, the physiology of bodily exercise opened the question of the storage and expenditure of nervous energy, which is a fundamental idea in the Jacksonian theories. The last four subjects had a thread of interest common to all, in regard to the genesis of delusions and the nature of the so-called systematized delusions.

In the second year, a connected series of subjects was chosen by common consent, with a more strict application of the "seminary method;" and the work was most stimulating and enjoyable for all who took part in it,—each in turn furnishing an evening's contribution on his chosen topic. The use of the method will appear from the following list:

Subjects discussed in the Seminary-Winter of 1890-91:

- 1. Laboratory work in hospitals for the insane, with an exhibition and description of some apparatus. Experimental work in physiological-psychology.
- 2. The history of the cell-doctrine, and the protoplasmic theory of life, (covering about thirty-five years to 1870-75).
- 3. Development of the protoplasm theory in the last twenty years, and the attempted abolition of the cell-doctrine. (The differentiation of structure in nucleated cells.)
- 4. The new aspect of the cell-doctrine in the study of microorganisms,—formerly considered as non-nucleated,—constituting the science of bacteriology. The classification of microorganisms.
- 5. The process of fermentation, and alkaloids of decomposition,—the products of infectious micro-organisms and the autogenous materials, (ptomaines, leucomaines, and extractives),—and their toxic effect upon the human organism.

The discussion of these topics led through an historical review of the general subject of cell structure, and, diverging from that into an examination of recent investigations into the nature and sources of both infectious and autogenous noxious elements in the body. The end in view, of all this work, was the study of nervous exhaustion. There is evidence that the phenomena, which are regarded as manifestations of the condition called nervous exhaustion, are dependent upon two principal elements, viz.: loss of power from excess of exercise of normal function, and inhibition of power from toxic influences. It is therefore necessary to study the nature and effects of these poisonous elements in order to take into account these attendant factors along with the effects that purely manifestations of exhaustion from expenditure of nervous energy.

Two other collateral topics were therefore considered as preparation for taking up the main subject of the structure and function of the nervous system, and the discussions went on as follows:

- 6. The general pathology of the blood; and toxic elements with reference to the functions of the leucocytes, (phagocytocis).
- 7. The toxic effects upon the nervous system, of retained waste products, usually eliminated from the blood by the kidneys; and changes in the urine from nervous disease.
- 8. The histology of the central and sympathetic nervous systems.
- 9. Study of the effects of stimulation of nerve-cells,—microscopical appearances of their molecular contents. (Physiological shrinkage of nerve-cells).

This last subject was presented by Dr. C. F. Hodge, who favored the Seminary with a demonstration by the microscope and otherwise, of the results of his investigations at Johns Hopkins and Clark Universities, showing a shrinkage of nervecells under stimulation, and recovery of normal appearances after resting.* The next subject was:

10. Pathological changes in the elements of the central nervous system.

Having made such a review of the minor data for the study of our main problem, the Seminary was then prepared to take up such matters for investigation as the following:

- 11. The physiology of nerve-cells and fibres;—nutrition, storage and discharge of nervous energy,—and the nature of nerve-force.
- 12. The physiological effects of physical exercise upon the central nervous system, within the limits of normal fatigue.
- 13. Study of reaction-time to show changes under conditions of mental and muscular rest and fatigue, (concurrent with laboratory experiments).
- 14. The same in conditions of nervous exhaustion—pathological fatigue.
- 15. Studies of the therapeutic effects of physical exercise,—medical gymnastics, etc.

The first ten subjects were arranged for study in the order in which they are given, and were duly assigned, at the beginning

^{*} Amer. Jour. of Psychol., May, 1888, May, 1889, and February, 1891.

of the season, to the individuals who undertook to present them. Everyone's work on his own subjects gave him a lively interest in the others, as each in turn made his contribution to the review of the history and literature of the larger subject; interest was aroused also in the undertaking of new investigations. There were concurrent contributions from the side of the laboratory, which thus furnishes the field and means for the newer work, in which the physiological, clinical and pathological studies may be brought together. To this end the pathologist is distinctly charged with clinical duties, holding the office of assistant physician, and having a certain share in the work of the wards. In fact it is precisely in this way that it is proposed to practically adapt the researches of the laboratory, with its "instruments of precision," to clinical and diagnostic uses. The last three subjects are added to indicate the lines of investigation that lie open for experimental work in the laboratory.

In regard to the Seminary the work of any given meeting does not involve the preparation of a formal written paper, but is made up by a presentation of the reader's notes of his own readings upon the topic under immediate consideration, by citations read from the books and journals of the medical library,—and by the further discussion of the questions raised by the other members who are engaged in the study of allied topics.

The volume of records forms an addition to the seminary method; and being well indexed it will be a valuable body of well-arranged data for subsequent reference.

This method is radically different, it will be seen, from the treatment of disconnected subjects common to ordinary "medical society" work, but it is elastic enough to permit the taking up of any topic of interest for the time being; or any, line of enquiry once started may be followed where it logically leads, otherwise than by a prearranged series. In fact it was our practice on occasions, in order to give time for preparation upon some regularly assigned topic, to ocupy the time of a meeting with a collection of brief reviews, made from articles upon some subject found in the current numbers of the medical journals, thus constituting also a journal club, the work of which should also be methodically organized. The difficulty of effective study in the midst of hospital routine is too well known. It is only

by systematic attention to the matter that anything worthy can be accomplished. This method not only furnishes an excellent system, but it minimizes labor, arouses interest, multiplies the effectiveness of the working power of each member of the seminary, and may be easily put in practice by the medical staff of any hospital. It would be well worth a trial in any medical society.

## JOURNAL CLUBS.

BY HENRY M. HURD M. D.. Superintendent of Johns Hopkins Hospital, Baltim**ore, Md.** 

It is evident to all who have given any attention to the present condition of institutions for the care and treatment of the insane, that the tendency to large establishments with everincreasing numbers of patients and a corresponding increase in routine duties, is directly detrimental to the study of insanity by members of the medical staff. The danger, in fact, is imminent that medical officers of every grade, will become absorbed in duties which are largely administrative, and which, from their pressing character, leave little time for original investigation or for keeping informed of the studies of other workers by systematic reading of journals which are devoted to neurology or psychiatry. The paper of Dr. Cowles has pointed out in a most suggestive manner what can be done by the "Seminary Method" to promote such study and to increase the common stock of knowledge.

The object of my present brief communication is to indicate an important auxiliary to this method by a systematic mode of studying and analyzing the current literature of our specialty, through the agency of what are known in colleges and universities as Journal Clubs. The object of a Journal Club is to present the literature of any given subject in such a thoroughly digested manner that all persons who attend the Club may know what is being done in each department of it by other writers and workers. Every institution for the insane which has a medical staff of even three members, can advantageouly organize such a club; and to the mammoth institutions which have large staffs, such a club can be made most efficient and profitable for good—so

efficient and profitable as to be a necessity. The three desiderata are, a good presiding officer, a good supply of journals, and a regular hour for meeting each week. The methods which can be pursued may vary somewhat, and as all are good, I will briefly describe three independent methods of conducting a club:

- 1. A popular method is to divide the supply of journals up among the members of the club, and to require each member to report upon such papers as may appear to him of value in his journals. Under this method of conducting a club, each member is expected to inform the others of the contents of the journals which he has read, and to summarize the articles which have proven new, or of interest to him. This is an excellent method to pursue in getting a club started, and is probably the best adapted to the ordinary conditions under which clubs will be organized. It is a good method to ascertain individual tastes and preferences in study, as well as to keep all the members of the club conversant with the whole range of the literature of the specialty. It may be considered the first stage in the evolution of every Journal Club. After, however, it has been pursued for some time, it usually paves the way for another and better method of study, which I will describe as the second.
- 2. A better method is to allot different subjects to the members of the club. Thus, for example, to one member can be assigned summarizing and reporting all articles relating to the pathology of insanity; to a second, all articles relating to the study of forms of insanity; to a third, everything which relates to the treatment of insanity; to a fourth, special topics like general paresis, epilepsy, etc.; to a fifth, allied topics like hypnotism or hystero-epilepsy, etc.; to a sixth, new remedies, etc., etc.—the list in fact being capable of almost indefinite expansion. This method systematizes the work better and makes it more fruitful for good. It is, however, open to the objection that the reports may become too prolix, and may include matter which is not especially profitable,—the value of the work depending on the good judgment and scholarship of the reporter.
- 3. A third method, and one which has proven the most successful in university work, is for the presiding officer to assign articles to the different members of the club,—of course with a due regard to the special tastes of the individual and the line of

his studies, and to devote each evening to one or more topics. It is also customary for the presiding officer to fix a limit of time for the report, and to guide any discussion which may arise.

For the success of a Journal Club it is essential:

- 1. That the work be made obligatory. It will not do to rely upon a zeal for study which may be cooled by other duties or by social obligations. The work should be made a part of the regular routine of the institution, and should not be pushed aside by any trivial matter. The same rule which governs excuses from any regular professional duty should govern all absences from the Journal Club. No new man should be added to the staff who does not intend to devote himself as loyally to this as to any other hospital or asylum duty. If outsiders are admitted—and I should say the more the better—they should come into the work under the same conditions.
- 2. A definite hour which will be reasonably sure to be free from interruption should be selected, and rigidly adhered to. Such an hour ought not to be at the close of an exhausting day's work.
- 3. The proceedings should be informal, and free discussion should be expected. The journals studied should have the widest possible range. French, German and Italian journals should all be laid under contribution.
- 4. The work should be thoroughly supervised by the superintendent or some person whom he may select. Whoever takes charge of the club ought to especially prepare himself to sum up each subject and to present its practical bearings upon the better study or the better treatment of insanity. This will often involve study and extra exertion; but such mental effort is recreative, and a grateful change from routine work.

The advantages of a Journal Club are manifold. A few of them may be mentioned.

1. It develops a spirit of professional study among the members of the hospital or asylum staff. The spirit of investigation and inquiry is easily lost unless special efforts are made to develop it. This is especially true where routine duties constantly press themselves upon the attention. Unless a spirit of study and inquiry is sedulously cultivated among the younger members of a medical staff, the zeal for professional advancement speedily disappears.

- 2. It provides for the systematic acquisition of knowledge by a division of labor; and the least possible waste of time on the part of each person concerned. This is an age of coöperation in literary work. Library and subject catalogues are undertaken by associated laborers; and enterprises which would be impossible to an individual become practicable to the many. Witness the success of H. H. Bancroft's gigantic historical enterprises. The work which he has finished by the aid of collaborators would have consumed four hundred years of individual effort, had such a length of years been granted to the head of the undertaking. It is in keeping with the spirit of modern study to economize time and effort by multiplying workers. Psychiatry and neurology are so vast that each student cannot read the good, the bad and the indifferent. The grain should be winnowed before it is gathered into store-houses.
- 3. It supplies a common field of study where the members of the staff may meet for contact of mind with mind. By means of it, individual tastes and aptitudes for study may be utilized for the common good. It gives a broader professional aspect to asylum work by bringing each member of the staff into relation with the whole field of psychiatry. It also affects the readier training and more speedy assimilation of new members of the staff. Young men come to asylum work fresh from medical schools and hospitals with a keen zest for scientific work. This should be utilized, and habits of regular study in lines of psychical research should be acquired as speedily as practicable. The Journal Club will also contribute materially to the unification of a staff which may have been brought together from different schools of medicine. This is too often neglected in large asylums.

## ABSTRACTS AND EXTRACTS.

The Pulse in Stupor.—James R. Whitwell contributes a series of sphygmographic tracings, which reveal a "typically high tension pulse, in which the cardiac factor is not very active." He suggests the term "Stenotic Dystrophoneurosis" as suitable for this form of mental disease, basing his claim upon the following summary of his investigations:

1. In cases of intermittent stupor, during the stage of stupidity, the vessels are in a state of tonic contraction, producing a condition of high tension. 2. Portion of this spasm may be removed by amyl nitrite. 3. This spasmodic condition is completely removed when the stage of lucidity occurs, giving place to a stage of lowered tension, either as a causation, concomitant, or resultant in relation to the changed mental state. 4. This change is constant in its occurrence. 5. Strict parallelism occurs between the mental and pulse condition, as shown by sphygmographic tracings taken during the transition period. 6. Considering the changes in the pulse in this disease, and the fact that a stenosis of the vessels at the base of the brain can be frequently shown post-mortem to be present, it is possible that this physical impediment to the blood supply of the brain may be sufficient to account for this form of mental disease, and thus warrant the establishment of it as a mental disease, with a name indicating its pathology approximately.—Lancet, October 17, 1891. J. M. M.

INFLUENZA AS A CAUSE OF MENTAL DISORDER.—At a meeting of the Medical Society of London, November 2, 1891, Dr. G. H. Savage read a paper on the Relationship of Influenza to the Neuroses. In summarizing, he quoted Dr. Leledy, Interne at the Asylum at Bourges:

1. Influenza, like other fevers, might set up psychopathy. 2. Insanity might come on at various periods of the disease. 3. It might start any form of insanity. 4. No specific symptoms resulted from it. 5. The rôle of the influenza varied in the production of the insanity. 6. It might be the predisposing or the exciting cause. 7. In all cases there was some acquired or inherited predisposition. 8. The insanity followed from altered brain nutrition, possibly toxic. 9. The onset of insanity was often sudden, and bore no relationship to the severity of the influenza. 10. The curability depended on general rather than special conditions. 11. The insane were less disposed to take it than the sane. 12. It had cured psychoses in rare instances. 13. The insane might have mental remission during the influenza. 14. There was no special indication in the treatment. 15. Influenza might lead to crimes and medico-legal issues.—Lancet, November 7, 1891.

BORAX IN EPILEPSY.—Dr. Mairet, in *Le Progrès Médical*, gives the results of observations of the use of borax in thirty-one cases of epilepsy, extended over many months. Five patients received no benefit; in four cases the drug

was discontinued on account of toxic effects; in nineteen, a diminution in the number of attacks was obtained, and in some of these the improvement was very marked, while in three complete cessation of the attacks during several consecutive months was secured. In comparing these results with the effects obtained by bromide of potassium in the same cases, it was found that in the majority of cases borax and bromide act in the same manner; that bromide is most efficacious in cases of so-called idiopathic epilepsy; and that borax has its greatest effects in cases of epilepsy associated with gross organic disease. Bromide often acts successfully when borax fails.—Lancet, November 7, 1891.

Peripheral Neuritis Associated With Epileptic Fits.—Dr. James Cagney, in the Lancet. November 14, 1891, reports two cases in which these conditions were concomitant. He refers to the toxic origin of neuritis, which may be regarded as only the peripheral manifestation of the morbific agent. Epilepsy is not known to be produced in this way, but mania and the most serious psychical disorders accompany alcoholic neuritis, and it is conceivable that an epileptic fit might be determined in one predisposed to it by an obscure toxic influence, of which the persisting evidence would be some degree of neuritis.

J. M. M.

Berlin Insane Asylum.—Consul-General W. H. Edwards reports to the government on the condition of this institution. (Reports from the Consuls of the United States, No. 131, August. 1891.) In 1889 there were 2,501 patients under municipal care, as against 1,582 in 1883, an increase greater than the increase in population by three to one. In 1887 two "so-called colonies" were established at a short distance from the municipal asylum at Dalldorf, making the census of the three institutions nearly 1,400. The surplusage were accommodated in private asylums, which numbered twenty-three in March, 1889. The private asylums are supervised by the Curatorium of the Municipal Asylum, each member of the Curatorium having certain private asylums to visit at least once during the year.

During the year 1888-89 a new teacher was added to the staff of the Municipal Asylum, "whose business it is to instruct in elementary branches patients sent to him by the physicians, and to interest others in geography history and the natural sciences. He also directs small musical, declamatory and theatrical entertainments." In the same year thirty-six men did 8,450 days' work in the field, and sixteen women 838 days' work during the summer. In the park eighty-four patients did 19,820 days' work. Tailors, shoemakers, carpenters, bookbinders, upholsterers, straw-plaiters, painters and hair-pluckers, raised the total value of patients' labor to \$4,016.49. The average cost of maintenance per diem in private asylums was forty-eight cents.

J. M. M.

Duboisin as a Sedative and Hypnotic.—Dr. Ostermayer (Allg. Zeitschr. für Psych., xlvii, 3 and 4) regards the sulphate of duboisin as superior to hyoscin in not having the inconveniences of the latter drug. It is chiefly a hypnotic,

producing sleep in from twenty to thirty minutes, and is to be given in doses varying from one to three milligrammes, according to the character of the case. It is said to produce no dangerous or disagreeable symptoms, and although continuous use produces tolerance, by leaving it off for a short time the full effect can be again obtained.—Lancet, October 10, 1891.

J. M. M.

Prognosis in Epilepsy.—Dr. A. W. Wilmarth, (Medical News, December 12, 1891,) contributes a paper on this subject based upon the study of 342 cases in his care, and 437 cases that had recovered before coming under his observation. When the first attack of convulsions occurred before the third year of life, in a little more than half the children attacked they ceased before the age of puberty. When the spasms persist, or begin after puberty, recoveries are rare. Persistence of convulsions is usually indicative of structural changes and mental instability or decadence will, as a rule, accompany them. When convulsions begin after injury to the head, making their appearance after the immediate effects of the accident have passed away, they are usually of grave significance, indicating that organic changes have followed the traumatism. In 273 cases in which hereditary influence was established, in nearly 58 per cent. the convulsions ceased. Of cases in which no neurotic taint was discovered, 38 per cent, recovered. The inheritance of sluggish brains, less liable to respond to irritability by convulsive explosions, explains the comparative immunity of the former class. Periodicity of spasms suggests a definite cerebral lesion. The prognosis is grave when mania accompanies the spasm, and especially when transitory mania seems to replace the accustomed spasm. J. M. M.

THE ITALIAN PENAL CODE ON INSANITY.—The following provisions of the new Italian penal code as reported in the *Journal de Méd. de Paris*, No. 43, 1891, may be of interest:

Whoever, at the moment of committing crime is found to be in a condition of mental disorder, such as to cause him to lose his consciousness or freedom of action, he will escape the penal consequences of the same; if, nevertheless, the judge considers it dangerous to give him his liberty, he shall be put in the hands of the proper authorities and the necessary measures in his case shall be taken.

When the mental disorder, without absolutely destroying responsibility, yet diminishes it decidedly, the penalty is less severe and in certain cases a special establishment may receive the condemned.

Whoever illegally deprives a person of his liberty is punishable with from one month to five years imprisonment and a fine of a thousand lire or more; if at the same time he is found guilty of threats, cruelty, or deceit, or has acted from a spirit of revenge or for money consideration, the punishment is increased from three to eight years imprisonment and from five hundred to a thousand lire fine. If the victim is a parent, or a husband or wife, a member of parliament, or a public officer, or if the restraint results in a severe injury to the person, health or fortune of the victim, punishment is increased to from five to fifteen years imprisonment and the fine from a thousand to five

thousand lire. The punishment may be reduced to one-half or even onesixth, if the party in fault restores the subject to liberty before any proceedings and without any injury.

The public officer who abusing his functions or neglecting the conditions or formalities prescribed by law, deprives any person whatever of his liberty, is punishable by detention of from three months to seven years and in cases above provided for, from six to fifteen years.

Any physician, surgeon or other medical officer who gives a false certificate, intended to deceive the authorities, is punishable with imprisonment of fifteen days or more, or a fine of a hundred to a thousand lire; and the same penalty applies to whoever makes use of the false certificate. If from this should result admission into an asylum of any sane individual or any other injury, the imprisonment may be increased from six months to three years. When the fraudulent document has been given for a fee, the punishment is from three months to two years imprisonment and a fine of from three hundred to a thousand lire, also confiscation of the fee.

Whoever by imprudence, negligence, inexperience in his art or profession, or by not observing the regulations or established discipline, causes a death, is punishable with from three months to five years imprisonment and from a hundred to three thousand lire fine.

Whoever causes physical injury, disturbance of the health or intelligence is punishable with imprisonment from one month to a year; from one to five years for causing permanent injury of sense, or of an organ, or persistent disorder of speech, etc.; and from five to ten years for any incurable mental or physical disease, loss of special sense, of a hand or foot, the power of speech, etc.

If there is no disease or incapacity for work produced or if such does not last for more than ten days, the punishment cannot exceed three months imprisonment or a thousand lire fine. Whoever abandons any person incapable on account of any mental or physical disease from providing for his wants or of whom he has the care, is subject to from three to thirty months imprisonment, and if there follows any serious injury to the mind or body the term may be extended from thirty months to three years.

Whoever permits the insane intrusted to him to wander away or does not immediately notify the authorities of his escape, is punishable with a fine of two hundred and fifty lire or more.

Whoever without authority or the necessary authorization takes charge of any one who has been declared insane, is liable to a fine of from fifty to five hundred lire, and if necessary to one month's imprisonment. In case of the director of the asylum or a physician in practice, to the above is added suspension.

H. M. B.

Morphine in Insanity.—According to Voisin morphine is a drug that is especially useful in a number of forms in insanity and its dangers have perhaps been a little exaggerated. It is especially against the element of pain that it is of value, and it is possible that too little account is taken of the complaints of patients, especially in hypochondriacal cases. It should be kept in mind that there is often a real basis for many of these complaints and that the imagination is not altogether in fault.

One great advantage of morphine in the treatment of insanity is that it can be employed hypodermically. Large doses are not required. Dr. Voisin commences with as little as one to two milligrams, and increases one milligram a day for several days, after which the dose remains stationary. Two injections daily are sometimes necessary, as the good effects last only a few hours.

Very satisfactory results have been obtained in neuropathic cases where there is reason to believe that anamia of the brain existed. It is injurious, however, in congestive and inflammatory insanity and in that connected with an atheromatous condition of the arteries. Great care should be taken in the diagnosis as to these points.

Idiosyncracies as to the drug are not infrequent and are hard to explain. Some patients can hardly tolerate it at all, and it should only be employed in cases where it produces its normal physiological effects.

H. M. B.

Alcoholism as a Cause of General Paralysis.—The following are the conclusions of a paper by M. Rousset, read before the French Association of Alienists, at Lyons, in August last, as reported in the Archives de l'Anthropologie Criminelle, etc.:

1st. The part of alcoholism in the etiology of general paralysis has always been, and is still the subject of controversy; the opinions of different authors taking four principal directions.

2d. Certain patients considered formerly as alcoholic paralytics, have in fact been given to excesses in drink. But these excesses have only occurred since the beginning of the general paralysis, so that they are rather its effect than its cause. This form of recent alcoholism should therefore not be credited with the production of the meningo-encephalitis.

3d. The correlative progression of alcoholic insanity and paresis does not necessitate the deduction that the latter is produced by the former. Ethnographic and geographical considerations scarcely appear to favor any more or less preponderant role of alcoholism in the production of general paralysis.

4th. The extracts from the reports of all the superintendents of the French asylums given in the general report of M. Claude (des Vosges) show rather clearly that the present opinions of clinicists on this subject are still quite diverse.

5th. It appears to us that in the great majority of cases the role of alcoholism in the etiology of general paralysis is subordinate to something undetermined and unknown and sometimes incomprehensible, which is met with in all diseases and which appears to be a necessary prerequisite to the development of the meningo-encephalitis; that is the predisposition which may be according to the subject, either cerebral and arthritic, vesanic and nervous or alcoholic. In certain cases which are not very common, chronic alcoholism aside from all predisposition, causing gradually a process of connective proliferation and cerebral sclerosis, may terminate in general paralysis.

н. м. в.

The following papers were also read before the meeting:

The Temperature in Epilepsy.—M. Mirat communicated his researches on this subject by taking the rectal temperature of epileptics at short intervals both during the periods when their attacks were frequent and also when they were free from them. He arrived at the following results: No modifications were observed prior to the attack, but there was a reduction of temperature during the attack, (especially if it was severe); again a rise, not reaching the normal, during the period of stertor and after the attack, perhaps for several hours, an increase above the normal. A prolonged slumber after the attack prevented this latter reaction, and agitation during this period of stertor produced a decided rise. The author compared these results with those of the modifications of the nutrition (urinary composition) which he had previously studied. He observed also, besides their attacks, that epileptics suffered sometimes from fever, the cause of which was impossible to determine.

He added also a few words on another symptom that he had studied experimentally, namely pupillary dilatation. This symptom exists before the convulsion together with pupillary rigidity, while during the attack, fluctuations occur, succeeded in the stertorous period by myosis.

In discussing this communication M. Magnan stated that he had not observed the lowering of the temperature at the moment of the attack and believed that it would be difficult to determine. He had observed a rise of temperature during the epileptiform attacks in the spinal type of general paralysis.

H. M. B.

DIMINUTION OF THE URINARY TOXICITY IN INSANITY.—MM. Weil and Raphael Dubois reported experimental researches showing the diminution of the toxic quality of the urine in certain cases of insanity. Their method was to inject the urine, concentrated by evaporation, of an insane patient and of a sane person separately into the veins of rabbits. They found that the urine thus treated, though more dense, more rich in solid matters than that of the healthy individual taken in comparison, was borne without injury, while the same quantity of the healthy urine caused death. This loss of toxicity they do not attribute to a retention of poisonous products, but to a defect in their elaboration, or as they express it, to an "empoissonnement en retour." As a therapeutic consequence we may administer to such insane patients the active-principals of the urine or their toxic equivalent, (chloral, digitalis, etc.)

н. м. в.

STATIC ELECTRICITY IN THE TREATMENT OF INSANITY.—M. Ladame reported results of some studies in the treatment of mental diseases by static electricity. After insisting on certain precautions and the graduation of the usage of this agent, he reported that he had found it useful in a large number of cases, and especially in depressed conditions. He reported also a case of circular insanity with alternations of four months of excitement with eight months of depression, in which the latter stage had been notably ameliorated by this means.

H. M. B

OCULAR AFFECTIONS IN INSANITY.—M. Royer reported the following general conclusions from his observations:

- (1.) As regards the nature of the lesions there is nothing special to insanity in the ocular affections of the insane.
- (2.) The right eye in right handed and the left eye in left handed individuals are most frequently involved.
- (3.) In a general way the insane, subject to ocular disorders, may be said to have hallucinations.
- (4.) The proportion of the insane who present ocular lesions is about onethird of the whole.
- (5.) Ophthalmoscopic examinations may indicate the administration of heart tonics in certain patients who having cardiac disorders apparently complex and present disorders of the intraocular circulation.

Special Conditions—(1.) In general paralytics it is desirable to substitute, for the symptom of pupillary inequality, that of pupillary rigidity, which is more general and more characteristic.

- (2.) Physiological excavation of the papilla is a very common condition in the degenerates.
- (3.) Hypermetropic idiots are true idiots of intrauterine origin. Emmetropic and myopic idiots are generally dements from their early infancy.

н. м. в.

The Double Chloride of Gold and Sodium in General Paralysis.—
M. Boubila reports that this drug given in doses of two milligrams to one centigram presents certain advantages in the treatment of paresis, and no special disadvantages. The increase of red globules went parallel with the increase of weight.

The drug is most indicated in the early stages of the disorder, but it may be useful also in the later periods, as it appears to retard the fatal termination of the disease.

H. M. B.

ACETONE IN THE URINE OF THE INSANE.—The following are the conclusions of a memoir by De Boeck and Slosse in the Bull. de la Soc. de Méd. Mentale de Belgique, September, 1891:

- (1.) When we wish to determine the presence of acetone in the urine, it is necessary to collect it with the greatest care. It should be preserved in well stoppled bottles, exactly filled; or better, be distilled immediately.
- (2.) The iodoform reaction of Lieben is, of all the tests proposed, that which is best adapted to reveal the slightest quantities of acetone. We may also have recourse to Gunning's test. Where these two reactions have failed all others are superfluous.
- (3.) The reaction to perchloride of iron has no value as a test for acetone; it is characteristic of diacetic acid.
- (4.) There is a physiological acetonuria. Its importance depends upon the richness of the alimentation in nitrogenous substances. The determination, therefore, of a small quantity of acetone in the urine of the insane has no pathological significance.

- (5.) The quantity of acetone contained in the urine has no relation with the psychic condition of the patient, (depression, agitation, fear, hallucination).
- (6.) The quantity of acetone increases considerably during inanition; it is worth while, therefore, to commence artificial feeding when in the patient, who refuses to eat, the amount of urinary acetone is decidedly augmented.

н. м. в.

THE BROMDES AND THEIR THERAPEUTIC ACTION.—At the session of the Soc. de Biologie, October 21, (reported in *Le Progrès Méd.*, No. 43,) M. Féré read some notes on the action of bromides, of which the following are the conclusions:

The bromide of strontium may be employed in epilepsy in the same doses as the bromide of potash. The accidents of intoxication are observed when this quantity is exceeded. The therapeutic action appears to be the same.

When we examine, in the autopsies of epileptics who have taken large quantities of bromides, and also of animals which have been subject to experiments and saturated with this drug, for the organ where the salts have accumulated, we find that the liver contains a greater quantity than the brain. The amount of bromide retained in the organism is very great. This state of saturation by the bromides has been accused of predisposing to tuberculosis. M. Féré has not observed this in his patients, but experimentation confirms it. Guinea pigs saturated with bromides and inoculated with tuberculosis succumb more quickly than animals not thus medicated.

н. м. в.

BORAX IN EPILEPSY.—M. Mairet, Le Progrès Médical, No. 41, October 10, 1891, concludes the opening lecture of his clinic on mental diseases at Montpelier, the subject of which was the use of borax in epilepsy, as follows:

Summing up the conclusions that follow from our study in regard to the use of borate of soda in the treatment of epilepsy, whether considered by itself alone or in comparison with bromide of potash, we will say:

- (1.) Borate of soda may have a real utility in the treatment of epileptic attacks, which it may diminish or even entirely suppress for many months.
- (2.) Borate of soda succeeds better in symptomatic epilepsies than does the bromide of potash.
- (3.) Bromide of potash, on the other hand, acts better than borate of soda in the epilepsy neurosis, and in this class of cases it is only after the bromide has failed that we need employ the borax.

Such are the results of my investigations, and they are sufficient, it appears to me, to justify the introduction of the borate of soda into the therapeutics of epilepsy, and consequently to require me to enter into some details as to the therapeutic methods in the use of this substance. This will be the subject of a coming lecture.

H. M. B.

Chlorohydrate of Hyoscine.—According to MM. Ramadier and Sérieux (Soc. de Thérapeutique,) Le Progrès Médical, No. 42, 1891, this substance is an active poison, which may be, however, employed in therapeutics in doses of one-fifth of a milligram, gradually and cautiously increased. It diminishes the heart pulse with dilatation of the capillaries, and decreases the salivary secretion. It also dilates the pupil and produces paresis of the lower limbs. It loses its effect by use, and the doses have to be increased. He has carried it as high as a milligram or a milligram and a half without accident. Its quieting effects are almost instantaneous.

It should not be employed in cachectic cases, or in subjects of Bright's disease.

H. M. B.

Jacksonian Epilepsy of Sub-cortical Origin.—Duflocq, Rév. de Méd., 1891, (Abstracts in Bull. de la Soc. de Méd. de Gand., LVIII, IX, 1891.) The patient described was taken suddenly with a sort of aura under the form of a feeling of constriction commencing at the epigastrium, and ascending rapidly to the pharynx, whence the pain extended toward the left side of the jaw. Shortly after occurred an epileptiform attack; first, the tongue was drawn backward, the head turned slightly to the left, the angle of the mouth and the whole left side of the face was drawn to the left and involved in clonic convulsions, the mouth was partly opened, the eye was not involved. The convulsions soon involved also the shoulder, which rhythmically rose and fell, the arm and forearm were only involved through the shoulder, their muscles were relaxed. During the convulsions the head inclined more to the left, and was held there by the contractured muscles.

The end of the attack was signalized by a rather abundant salivation, which commenced a little before its termination. There was no loss of consciousness, or rise of temperature, or increased rapidity of pulse. The attacks recurred frequently during the day, and were followed by facial paresis.

During the days following they increased in number, threatening the life of the patient. Trephining was performed by M. Lucas-Champonnière, but after the incision of the membranes nothing abnormal was discovered. The patient died suddenly on the evening after the operation.

At the autopsy there was found in the white substance of the brain, underlying the lower part of the ascending frontal convolution, a small sanguine cyst, of old date and well-capsulated. The cortical substance was intact, and was separated from the tumor by a thin layer of white substance.

The author has been unable to find any well-authenticated case comparable to this, and thinks it is unique. This is not strictly the case, however, as other more or less similar cases have been described; but it is noteworthy.

H. M. B.

THE ACTION OF CHLORAL ON THE KIDNEYS.—Cavazzani, (La Riforma Med., June 8th, 1891, abstracts in Annales de la Soc. de Méd. de Gand...) has studied the action of chloral hydrate on the kidneys, and comes to the following conclusions:

- (1.) Hydrate of chloral injected into the abdominal cavity produces an irritant action on the functional epithelium of the kidneys. After the first, or rather after several injections, there follows a visible granular degeneration of the epithelium of the tubuli contorti. After prolonged administration of the drug this degeneration reaches the epithelium of all the renal tubes except the straight tubes.
- (2.) In more severe cases hydrate of chloral produces a swelling involving all the renal epithelium with all the signs of an incipient acute purenchymatous nephritis. The glomerules of Malpighi and the interstitial connective tissue are not involved. The intensity of the lesions depends upon the duration of the administration of the drug, and also upon a special susceptibility of the subject. The administration of the drug by the mouth may also cause epithelial degeneration in the tubuli contorti, but to a less degree and only after prolonged administration of large doses.
- (3.) These lesions of the renal tissue generally disappear some time after the cessation of the giving of the drug. This at least takes place in the milder cases which always follow the prolonged medication, but it is not to be looked for in case of severe troubles. Albumen is not found in the urine even in cases where the autopsy shows very decided lesions.
- (4.) This last fact probably explains the errors of clinical observations in regard to the damage on the kidneys produced by the hydrate of chloral.

These observations show the need of prudence in the administration of chloral, especially in cases of kidney disease.

H. M. B.

The Olfactory Apparatus.—Dr. M. P. Trolard, Professor of Anatomy at the Medical School of Algiers, has published a series of articles in the Archives de Neurologie, Nos. 60, 62, 64 and 65, on the connections of the olfactory lobes. His researches were suggested by the theoretical assumptions, which he is aware will not meet universal credence, that the olfactory bulbs are homologous to spinal nerves, not to lobes of the cerebrum, and that each spinal nerve has three different connections—a spinal arc, connecting the afferent and efferent fibres of the nerve; an indirect cerebral arc, consisting of two portions, the one connecting the nerve-roots with the optic thalamus and corpus striatum, the other connecting these ganglia with the cerebral cortex; and, finally, the direct arc, connecting the nerve-roots with the cerebral cortex by uninterrupted fibres. He has confined himself, as to methods, to gross dissections of the human brain, leaving comparative anatomy, histology and embryology to those who are more expert in them than himself.

The conclusions to which he comes are, briefly, as follows:

The olfactory cortex is contained in the fascia dentata of the cornu Ammonis, which is continuous with the formation of the nerves of Lancisi. Whether or not it comprises anything more, the author leaves undecided.

The fibres of the roots of the olfactory bulb are dispersed in the gray matter of the anterior perforated space, which is equivalent to Charcot's posterior root-zone in the case of a spinal nerve. From this proceed the fibres which constitute the three arcs mentioned above.

The spinal arc is formed by a band of fibres, sometimes pretty distinct, on

the inner surface of the cerebral peduncle. It comes in close relation with the corpora mamillaria, enters the pons at its anterior border, and can, he thinks, be followed to the neighborhood of the eminentia teres. Further than that point he has not succeeded in tracing it.

The first, or intermediate portion of the indirect cerebral are is formed by a band of fibres which passes beneath the gyrus uncinatus, accompanies the optic tract, along its exterior border, to the corpus geniculatum externum, and turning over the posterior border of the optic thalamus, spreads over its posterior surface, and ends by forming a thick envelope over its anterior tubercle. The second or cerebral portion starts from the anterior tubercle as Vicq d'Azyr's bundle, which passes to the corpora mamillaria, the origin of the anterior pillars of the fornix, which completes the connection with the gray matter of the fascia dentata.

The direct arc consists of two portions, the one, including the external root of the olfactory nerve, passing directly into the gyrus uncinatus; the other consisting of fibres that pass upward through the septum lucidum, and enter the anterior pillars of the fornix.

The author also believes the pineal gland to be a part of the olfactory apparatus, basing his opinion on its evident connection with the anterior tubercle of the optic thalamus.

W. L. W.

MOTOR PATHS IN THE SPINAL CORD.—Rossolimo, of Moscow, publishes in Archives de Neurologie, July and September, 1891, some experiments which he has made with a view to determining the course of the motor and sensory fibres in the spinal cord. The following are the principal results of his investigations:

When a section is made through a lateral half of the cord, it is immediately followed by complete motor paralysis of the portion of the body below and on the same side with the section, with exaggeration of sensibility on that side, and abolition of sensibility of the corresponding portions on the side opposite to the section. When the animals (Guinea pigs) survived the immediate effects of the operation, some return of motion was noticed in the paralyzed limb in about a week after the operation, and in the course of four or five weeks motility was pretty well restored, although there always remained a slight paresis of the limb. The sensory phenomena remained essentially unaltered as long as the animals were preserved—in one instance nearly six months after the operation.

If, now, another hemisection of the cord was made, on the same side with and above the first, no effect was observed, either as regards sensation or motion, on the parts below the original lesion. If, however, the opposite side of the cord was divided, motion and sensation were at once completely abolished on both sides.

Median longitudinal section of the lumbar enlargement produced complete abolition of sensibility in both hind legs, with but very slight impairment of motion.

The examination of the cords showed that in no case was there any regeneration of nervous substance in the original incisions, even when motor

power had been almost completely restored. Descending degeneration was found in the pyramidal tract, and ascending degeneration in the column of Goll and the direct cerebellar tract on the side of the lesion.

The author concludes, accordingly, that in cases of restoration of motor power after hemisection of the cord, the impulses are transmitted through the opposite side.

W. L. W.

Double Personality.—Dr. J. Seglas, physician to the Salpétrière, reports two cases in the Archives de Neurologie, July, 1891. The first concerns a man, thirty-three years old, suffering from delusions of persecution and of personal importance, accompanied with very intense hallucinations. He is troubled by what he calls "the phonograph," consisting of a concert of voices which sometimes seem near at hand, sometimes to come from a distance, uttering disagreeable and insulting words. They are telephonic and polyphonic, and are also penetrating, in the sense that the words are re-echoed fifty or a hundred times. He thinks that he has passed into the state of a "registering phonograph." In addition to these voices there is another which he calls the "labial voice." This is a voice which speaks within his chestrand is understood, not by the sense of hearing, but by the movement of the lips. Sometimes it compels him to say quite the contrary of what he intended. He believes himself to be possessed by spirits. Hallucinations of sight are also present in this case.

The second case is that of a widow woman, sixty-three years of age, who believes herself to be possessed by five priests, one of whom inhabits her head one her throat, one her stomach, and one her abdomen. She has paræsthesiæ in various parts of the body, which she attributes to the machinations of these priests. The one in her abdomen gives her the colic by his movements. They have stolen her heart, her nails, her palate and tonsils; have taken away her memory, her feelings and her thoughts.

They talk to her from various parts of her body, and she understands what they say, not by hearing, but by the movements of her tongue. Frequently one hides under her tongue and moves it. When they speak to her from other regions, the one that inhabits her throat and tongue acts as interpreter, repeating, by means of her tongue, what they say. They sometimes also talk to her by movements of the eyes, but she usually cannot understand what they say to her in this way, which she considers surprising, as the same thing goes on in her eyes as in her tongue, and she has no difficulty in understanding the latter.

Hallucinations of hearing have been infrequent. She has had hallucinations of sight, and the senses of taste and smell; the priests have sent her thirty-six different bad odors which enter by the nose and pass out by the mouth. She believes that she diffuses an odor resembling that of sulphur. She will not look any one in the face, for fear that if the eyes of any one met hers, that person would also become possessed.

In the discussion of the cases, Dr. Seglas emphasizes the motor element, which he believes to be one of the principal causes of the feeling of double personality.

w. L. w.

AMYLENE HYDRATE IN EPILEPSY.—At the meeting of the Psychiatric Society of Berlin, March 16, 1891, Dr. Weber, of Dalldorf, gave his experience with this drug in seventy carefully observed cases of long standing, about equally divided between the sexes. All had used bromides, and many presented evidences of bromism. Most of the patients used the drug from two to three months. The dose varied from two to eight grammes (one-half to two drachms) daily. Eighty per cent, showed no marked variation in their convulsions; in fifteen per cent. there was a decided increase, and in five per cent. a decrease. patient remained entirely free. With the exception of this last mentioned case, all the patients showed disturbances of the general health, consisting in drowsiness, mental sluggishness and digestive disturbances, which led the speaker to give up the treatment, even in those cases in which it seemed to exercise a favorable influence on the convulsions. In ten per cent. of the cases a very striking diminution of the number of fits was noticed on the resumption of the bromide treatment, the number falling in some cases to one-fifth or one-sixth of what had occurred under the same treatment previously to the use of the amylene hydrate.—Cetralblatt f. Nervenheilk, June, 1891.

W. L. W.

Dissociation of Thermic Sensibility in Syringomyelia.—Déjerine and Taillant (Ann. de Médee., April 15, 1891,) report a case in which the sensibility for touch, pain and moderate variations of temperature was normal, but on the forearms and hands heat sufficient to blister the skin was not felt as heat, and the same was true of intense cold. At the autopsy a hollow medullary glioma and parenchymatous degeneration of the cutaneous nerves of the hands were found.—Ibid.

W. L. W.

Condition of the Blood in the Insane.—Winckler, in an inaugural dissertation on this subject, gives the results of investigations into twenty-one cases. He finds that in all forms of insanity, while the number of red corpuscles is not usually diminished, the proportion of hæmoglobin is much lower than in health. The proportion was lowest in depressive forms of insanity. Paroxysms, whether of mania or melancholia, produced a diminution of both number of corpuscles and of hæmoglobin which improved with the subsidence of the attack. In convalescence both improved coincidently with the gain in weight; the onset of terminal dementia, on the other hand, notwithstanding the gain in weight, was associated with a progressive deterioration of the blood.

Smyth, of the Kent County Asylum, (Journal of Mental Science, October, 1891,) comes to substantially similar conclusions from an investigation of 137 cases. He finds, in all forms of insanity, a moderate diminution of the number of red corpuscles—from eighty to twenty per cent.—with a very much greater loss of hæmoglobin—twenty-six to forty-two per cent.—the latter in secondary dementia, which also gives the lowest proportion of red corpuscles. The specific gravity of the blood, on the contrary, is increased in all forms, and most so in secondary dementia.—Ibid. w. L. w.

INFLUENCE OF HYPNOTICS ON THE EXCITABILITY OF THE RESPIRATORY CENTRES.—Loewy (Berl. Kl. Wochenschr., 1891, No. 18,) reports the results of experiments on six persons by increasing the respiratory stimulas by means of the administration of earbonic acid in equal concentration. He found that the irritability of the respiratory centre was constant in the same person in the waking condition, and was not increased in sleep, whether the latter was natural or induced by chloral hydrate, amylene hydrate or chloral formamid. It was diminished by morphine, both in the waking and sleeping state. None of the hypnotics used appeared to influence the process of oxydation in the body.—Ibid, July, 1891.

W. L. W.

Bromism and Intestinal Antisepsis.—Feré (Nouv. Iconographie de la Salp., Nov. et Dec., 1890.) reports a large number of cases in which he found it necessary, for the suppression of epileptic convulsions, to administer large doses of bromides, sometimes as high as eighty grains per diem. In many instances he had been able to permanently counteract the tendency to digestive disturbances and cutaneous eruptions by the administration of onaphthol and salveilate of bismuth (one drachm of the former and one-half drachm of the latter per diem), which could be administered for months without any injury.—Ibid.

W. L. W.

DIPHTHERITIC PARALYSIS.—Hochhans (Virchow's Archiv. Bd. 124, Heft. 2,) found, on examination of the paralyzed nerves and muscles of four persons who had died of diphtheria, that the nerves were intact, apart from slight increase of nuclei in the small muscular branches. In the muscles, there was parenchymatous cloudiness of the fibres, proliferation of nuclei, and increase of the interstitial connective tissue. In the heart, there was an extraordinary accumulation of cells around the vessels, resulting in some cases in displacement, in others in atrophy of muscular fibres. The cause of the paralysis is accordingly believed to be inflammation of the muscles, principally located in the interstitial tissue.—Ibid, August, 1891.

w. L. w.

## BOOK REVIEWS.

- Reports of Austrian Hospitals for the Insane.—I. Jabresbericht der niederoesterreichischen Landesirrenanstalten Wien, Ybbs, Klosterneuburg und des Irrnenstaltsfiliales Gugging-Kierling pro 1889. (Annual Report of the Lower Austrian Public Institutions for the Insane at Vienna, Ybbs. Klosterneuburg, and the Branch Institution at Gugging-Kierling for 1889.)
- II. Die Privatheilanstalt zu Ober-Doebling, Wien, XIX Bezirk, Hirschengasse 71. II. Bericht ueber die Leistungen der Anstalt vom 1 Juli, 1875, bis 30 Juni, 1891. (The Private Hospital at Ober-Doebling, Vienna. Second Report on the Work of the Institution from July 1, 1875, to June 30, 1891.)

The reports of the public asylums of lower Austria, printed together in a thin pamphlet, present pretty much the same general features with those of the preceding year, noticed by us not long ago. Peculiarities of the statistical portion are reports of all cases of intercurrent illness, of all injuries, even slight cuts and bruises, and all attempts to escape. There is still general complaint of overcrowding with its attendant evils.

The mortality in the different hospitals was as follows:

	Numl	er Treated.	Deaths.
Vienna,		1;689	185
Gugging-Kierling,		455	40
Ybbs,		565	29
Klosterneuburg,		440	46

Pulmonary tuberculosis furnished the largest number of deaths in all except the institution at Ybbs, in which seven deaths were credited to "marasmus" against five to tuberculosis. In Klosterneuburg twenty out of the forty-six deaths were from phthisis, the "morbus Viennensis" of the Vienna hospitals.

As in the reports of the preceding year, alcoholism cuts a large figure in the etiological tables. In the Vienna hospital it is given either as the sole or a contributing cause in nearly forty per cent. of the male patients received during the year.

At Ybbs, an epidemic of trachomasis is reported, which seems to have involved a large part of the population. At one time there were 125 pronounced and 78 doubtful cases.

All of the other institutions suffered from the epidemic of influenza. There as elsewhere, employés were attacked in much larger proportion than patients. One chronic case of insanity is reported to have recovered at Vienna, in consequence of an attack of influenza, and another improved remarkably, but subsequently relapsed.

The private hospital at Ober-Doebling is conducted by Professor Obersteiner, who is widely known by his work on the Central Nervous System. As stated in the title, the report is the second in the history of the institution, and covers a period of sixteen years. It is a volume of 191 pages, beautifully printed on heavy paper, with wide margin, and profusely illustrated

with photogravures of the buildings and grounds. The make-up of the report gives the impression, which is confirmed by its contents, of abundant means, applied with liberality and intelligence.

The hospital is situated in a suburb of Vienna, recently incorporated in the city. Its grounds comprise about eighteen acres, and, with exception of the space occupied by the buildings, are almost exclusively used for purposes of recreation, forming a large and pleasant park, with extensive views over the city and the surrounding country. With exception of a small house accommodating seven patients, there is but one hospital building, which is so arranged as to allow of a satisfactory classification of patients, and to avoid disturbance of those who are quiet by the noisy and disorderly. The rooms are large, weil lighted, and, to judge by the illustrations, luxuriously and tastefully furnished. One article of furniture, which is not pictured, I will describe, as nearly as may be, in the words of the report:

"For restless, helpless patients, who will not remain in bed, lattice beds are in use, like those used for little children, except that there is a similar woven lattice like a roof to close them above, by which it is made impossible to climb over the side." Shall we venture to say this would seem to be not very unlike what was within the memory of persons still living celebrated as the U * * * c * * *? As the special law for the government of the hospital strictly forbids the use of mechanical restraints except when necessary for the safety of the patient, it is evident that it does not come under that category.

The building is heated by steam, with indirect radiation, lighted, with exception of the patients' rooms, by gas, and supplied with water from the city water works. It may serve as an illustration of the backward state of continental Europe in what we are apt to consider indispensable conveniences, that gas was not introduced until 1877, and the consent of the authorities could not be obtained to the introduction of the water, which was flowing on the street, into the building until 1883. Not until then were there any satisfactory bathing facilities. Parlors, rooms for amusements and a chapel, are provided and appropriately furnished. There are rooms for 72 patients, which is the largest number that has ever been under treatment. The number at the time of preparing the report was 69. Although it has often been proposed to enlarge the building, owing to inability to receive many patients for whom application was made, in the words of the report, "These plans, however, have always finally been rejected, in the conviction that a hospital of this sort should not exceed a certain size. Every patient needs special care and consideration; every one should receive the closest attention; the treatment should be strictly individualized, while at the same time a certain unity in administration must be preserved. An institution should therefore only contain so many patients that all these conditions can be satisfied, and therefore, notwithstanding so many favorable opportunities, an enlargement of the institution has not been carried out."

For the care of the patients, there are two physicians besides Professor Obersteiner, twenty-eight male and seventeen female attendants, and other employes sufficient to bring the total number up to 78, or more than one to each patient.

The hospital receives voluntary patients suffering from nervous disease. Of the 69 ûnder treatment at the time of the report, seven were of this class. During the period covered by the report, 669 patients have been classified as insane, and 98 as nervous invalids. The latter are classified under the heads of psychical excitement, psychical depression, hypochondria, apoplexy, epilepsy, syphilis of the nervous system, alcoholism, morphinism and chloroformism. Of the insane, 181 have been discharged as recovered, 145 as improved, 142 as not improved, and 139 have died. Of the total number of insane received, 427 were men and 242 women. Of the deaths, 113 were of men and 26 of women. This disproportion is accounted for by the prevalence of general paresis in the male sex. This disease was the cause of death in 90 cases—87 men and 3 women. In striking contrast to the public hospitals, only four, two of each sex, died of pulmonary consumption.

In regard to employment and recreation, the fact is noted that it is more difficult to engage private patients in such work as would be beneficial to them than in a public asylum. The place of labor must be largely supplied by amusements. Music seems to be rather a specialty. There are thirteen pianos in use in the hospital, to say nothing of other instruments, and many of the patients take systematic and advanced instruction in music. Others have drawing lessons, and other branches are studied to some extent. Facilities are provided for all the ordinary games and for gymnastic exercises; there are opportunities for walks and rides in the grounds, and, for those whose condition allows it, elsewhere; frequent musical and dramatic entertainments are given, and many of the patients are taken to entertainments in the city. Evidently Professor Obersteiner does not agree with Dr. Batty Tuke as to the mode of life that is best for the general run of the insane, although the fact is explicitly recognized that there are cases that need complete rest, and confinement to bed.

One point in regard to the assignment of attendants to duty seems worth mention. It has been found that it is better, both for attendants and patients, that the former should not remain uninterruptedly in charge of the same patients. The monotony of associating with only one or a few insane persons is wearing and depressing, and the attendants become, after a time, incapable of doing their best work. Accordingly it is the practice to make weekly changes of attendants, due regard being had for their special qualifications. This is not only advantageous in the respect already mentioned, but is more likely to bring to light any little negligences on their part.

An interesting chapter is devoted to some clinical observations. With regard to the connection of syphilis with general paresis, unquestionable proof of previous syphilitic infection was obtained in 74 cases of insanity, of whom 72 were men and 2 women. Of these, 64 men and 2 women were general pareties. The total number of pareties treated was 194, of whom, accordingly, 33.7 per cent. were certainly syphilitic. The number of other patients was 475, and the proportion of ascertained syphilities 3.4 per cent. The percentage of general pareties among the cases of ascertained syphilis was 88.9.

No other of the usually assigned causes of general paresis was found with anything like the same frequency. Thus, hereditary predisposition was found in 25 cases; mental over-exertion in 18, &c.

In view of the contradictory statements of different writers in regard to the frequency of hallucinations in general paresis, the material furnished by the hospital was examined with reference to this point, with the result that satisfactory evidence of hallucinations was only found in 20 out of the 194 cases.

It is found that many more pareties die during cold than warm weather. Out of 91 deaths of pareties, 42 occurred in the three winter months, and 59 in the six months from October to March, inclusive, while of 51 deaths from other causes, only 21 occurred in the same six months.

Twenty-one cases of morphine habit came under treatment during the period covered by the report, of whom eleven were physicians and one the wife of a physician. On this subject the writer takes less radical ground than many. He holds that it is useless to break off the habit so long as the disease which give rise to it persists, as relapse is certain to occur. In cases of deficient activity of the heart, whether from organic lesions or disturbances of innervation, it should be undertaken with the greatest caution. The only death occurred in the case of a highly hysterical man, from sudden heartfailure, during apparent convalescence. The administration of morphine should never be stopped abruptly. The dose should be diminished rapidly at first, slowly towards the end. Constant regard should be had to the patient's condition, and in case of alarming symptoms, a sufficient dose of morphine, for relief, should be given without hesitation.

Notwithstanding the dangers of cocaine, it has been found of very material advantage, when properly administered, in relieving the distress of abstinence from morphine. The matter seems of sufficient interest to warrant the quotation in full of the directions:

"1. Recourse should only be had to cocaine when the symptoms of abstinence begin to be very severe, accordingly about 24 to 48 hours after the last dose of morphine.

"2. Cocaine is always to be given internally, never hypodermically; best in the following permanent solution:

Ŗ	Cocaini muriat,:	0.5
	Acid. salicyl,	0.1
	Agu. destill	100.0

- "3. The single dose may be from 0.05 to 0.1 of cocaine, administered as required several times in the day, but a daily dose of 0.5 should never be exceeded.
- "4. On the second or third day the daily quantity should be rapidly diminished, and the cocaine treatment should not in any case be continued more than 5 to 6 days."

Administered in this way, it is claimed that cocaine, in many cases, relieves the distress of morphine abstinence, as it does the feeling of hunger, thirst and weariness.

Space will only allow us to note, from an interesting discussion of the temperature in nervous attacks, that in a case of general paresis in which the temperature was systematically taken, a decided fall of temperature was repeatedly noted just preceding convulsive seizures. It is suggested that

this might enable the physician to avert such attacks by timely administration of chloral.

The concluding chapter deals with the subject of treatment. In regard to psychical treatment it was hardly to be expected that anything very original should be produced. The advantages of treatment of the insane in a well-conducted hospital over that which is usually possible in their homes are forcibly set forth, and emphasis is laid on the importance of individual treatment, and the possibility of doing harm by the injudicious use of measures, such as work, amusements and the discussion of morbid ideas, which are of the highest value in properly selected cases. Hypnotism has been tried with little success in insanity, although beneficial in some cases of nervous disease. The insane are usually difficult to hypnotize, and very little amenable to suggestions.

Chloral hydrate, notwithstanding its many drawbacks, is considered to be the most useful hypnotic. It is not given in larger doses than three grammes in twenty-four hours, and only exceptionally, and never for a long time, to paralytics and patients suffering from weak heart.

Paraldehyde has the advantage over chloral of not depressing the circulation, but soon loses its effect unless the dose is rapidly increased, and the weaning from its accustomed use produces almost severer disturbances than in the case of morphine. The dose is not allowed to exceed six grammes, and its administration is suspended when it loses its effect.

The disadvantages of sulphonal are mostly connected with its slight solubility, which is thought to be the explanation of the alarming symptoms sometimes noticed from the continued use of small doses—the drug remaining undissolved in the digestive passages until favorable circumstances allowed a large quantity to be absorbed at once. Accordingly it is not administered in doses of more than two grammes, never continuously for a long time, never when digestive power is weak, and, as far as possible, in solution.

Urethan is too feeble; amylene hydrate is very similar in its effects to paraldehyde. The other new hypnotics have not been sufficiently tried to warrant a judgment founded on experience. Cannabis In ica in doses of from 0 05 to 0.1 gramme, has been found of service in some cases, especially when it is desirable to relieve feelings of depression.

The bromides, in occasional moderate doses, are valued as sedatives. A warning is given against the combination of large doses of bromides by day and of chloral by night. Morphine and codeine are in limited use, not as hypnotics, but for the relief of depression in hypochondriacal and melancholic cases. Hyoscyamin and hyoscin have both given excellent results, not only in allaying excitement, but by a favorable influence on the circulation, but the experience of their dangerous effects has been such that they are seldom used. Neither is thought to have an advantage over the other in this respect.

Digitalis has proved a valuable sedative in cases of restlessness combined with vascular excitement. A calamative effect has been noticed from salicylate of soda, antipyrin and phenacetine.

An account is given of some experiments with salicylate of soda in epilepsy. Administered in full doses—usually four grammes daily—it had an un nistakable and very marked effect in reducing the frequency of the convulsious, but

the constitutional disturbances from its continued use were so great that it had to be given up Bromides continue to be the main dependence in this disease. In the status epilepticus, reliance is placed on chloral, in dose of three grammes. When it cannot be given by the mouth, it may be administered by enema. If, as sometimes happens, the enema is not retained, the drug can be safely and conveniently given by the hypodermic method. In this case, at least, two grammes of chloral should be used, diluted with not less than ten times the quantity of water. Of course the administration of such a quantity of fluid with the ordinary hypodermic syringe is a tedious process. In case no suitable instrument is at hand, a hypodermic needle can be attached to an ordinary syringe by a bit of rubber tubing. It is preferable to introduce it slowly, to distribute it through the tissues by massage, and to divide the dose among several points of injection.

We have by no means exhausted all the points of interest in this report, but a review must have an end. We cannot end this one more appropriately than by quoting the author's closing words:

"Not diseases, but patients, are to be treated; we must not generalize, but individualize; we should neither proceed in a stereotyped way, after old tradition, nor hastily after new fashions, but according to well-weighed experience, not according to dead books alone, but with right estimation of the living man and his special conditions, unwearied and undismayed, relying on medical science and medical art."

w. L. w.

Les Fonctions du Cerveau, Doctrines de l'Ecole de Strasbourg, Doctrines de l'Ecole Italienne. Par Jules Soury. Paris, 1891: Bureaux du Progrès Médical. (The Functions of the Brain, Doctrines of the School of Strasburg, Doctrines of the Italian School.)

This work, which is mainly a re-publication of articles which have appeared in the Archives de Neurologie and L' Encéphale, is a critical review of the subject of cerebral localizations, with special reference to the labors of certain German and Italian physiologists. In the first hundred and forty-four pages the author devotes his attention to the investigations and views of Goltz, of Strasburg, and his followers, which he describes under the heading of "The Doctrines of the School of Strasburg." The conclusions of his critical examination are, as may be inferred, not in accord with the views of the Strasburg professor, which are not only not always in agreement with the best established physiological facts, but are also in some points hardly borne out by our present knowledge of the finer anatomy of the nervous centres. M. Soury is fully appreciative of the merits of Goltz as an investigator, but holds that he has in spite of himself been compelled to bear witness to the truth of the general principles of localization of functions of the brain, which he started out with the intention of combating.

Nearly two-thirds of the work is given to the critical statement of the investigations and views of the numerous Italian physiologists who have engaged themselves in the elucidations of the functions of the brain. The author recognizes an ethnic element in the character of the Italian schools, and pays a very high and deserved tribute to Italian science. We cannot go at length into the details of this portion of the work, or do better, indeed,

than to reproduce his general statement or summary of the views of the Italian school. He sums them up as follows:

- (1.) The doctrine of the functional localizations of the brain, taken from the Italian memoirs, as a whole, is essentially eclectic in its nature; before all and solely preoccupied with experimental facts and clinico-anatomical observations, it holds itself at equal distance from all extreme theories, and endeavors to bring out whatever truth the contrary theories may contain.
- (2.) The different functional areas of the cerebral cortex, besides their own proper territory or central tract, possess also common grounds or zones of irradiation where they work into each other (s'engrènent), mingle or penetrate in part, and pass insensibly one into another. It follows that the various functions of the brain are so intimately connected with each other that it is impossible to injure one alone without others being more or less affected.

These zones of irradiation or common territories are much less extensive in man than in the lower animals; the functional centres of the human brain have their limits better defined and more fixed.

All the zones of sensitive sensorial innervation converge in the dog toward a neutral or common territory situated in the inferior parietal lobe. Lesions of this "centre of centres" cause at the same time disorders of vision, audition, olfaction and general sensibility. They affect the whole psychic life of the animal and modify profoundly its character (Luciani).

- (3.) The cortex of the brain is the seat of the higher psychic functions (perception, ideation, voluntary impulsion and attention), but not of the simple sensations and organized motor impulses; the ganglia of the base, the opto-striate bodies, appertaining to the cortical system, may in part replace, as centres of perception and ideation, the function of the cerebral cortex.
- (4.) The different points of each functional sphere of the cortex hold with the corresponding organs of sense, almost identical relations; it is therefore possible that the different parts of the same centre may replace each other, which would be impossible did isolated relations exist between the peripheral nervous elements of a sensory organ and the nervous elements of the corresponding cortical centre.
- (5.) The relations of each functional centre of the cortex with the corresponding peripheral organs are bilateral for sight, hearing and smelling, and unilateral for the sensori-motor sphere. It is necessary to take account, however, for this last named centre of the anatomico-pathological researches on the descending degenerations of the pyramidal fibres consecutive to local lesions in the sensori-motor area.
- (6.) The morphological varieties of the nervous elements of the cerebral cortex have no relations with their functions. The only criterion in this regard is to be found in the nature of the nervous prolongations and their anatomical connections, and not in the form of the cell.
- (7.) In the different zones of the cerebral cortex, the two types of cells of motility and sensibility are mingled and confounded in various proportions, consequently the functions of sensibility and motility, far from being distinct, coincide and have a common anatomical localization.
  - (8.) The functional specificity of the different cortical areas depends, not

upon any specific difference of the nerve elements, but on the nature of the sensations of the peripheral organ with which these centres are connected through the nerves.

- (9.) No direct, isolated, nervous transmission, either centripetal or centrifugal, exists between two central and peripheral cells, or groups of cells. The communication of the nerve fibres between these takes place in the central nervous system, not by anastomoses of the direct prolongations of the nerve cells, but by means of a vast net-work made up of the ultimate ramifications of the cylinder axes of the two kinds of fibres of sensation and motion.
- (10.) The nervous muscular tendinous organs of Golgi are the peripheral organs of the muscular sense.
- (11.) The cerebral activity, like muscular action, causes in the beginning in its dynamic stage, or phase of active work, an appreciable cooling of the brain substance, like that in the muscle, followed in the static phase, or that of repose by an increase of temperature.
- (12.) The successive variations of the temperature of the brain during work, constitute veritable thermic oscillations of cooling and heating. These thermic oscillations correspond to the rhythm of the processes of functional disintegration and repair of the nervous centres. Cerebral work is a form of energy. The intelligence has its chemical, thermic and mechanical equivalents.

The volume concludes with a very instructive appendix on the subject of cortical epilepsy as it has been treated of in the literature of the Italian school. It is noteworthy in this that while the Italian physiologists were yet among the first and strongest advocates of the cortical theory of epilepsy, it is held by them with certain reservations. A very striking case illustrating the possibility of even partial epilepsy from subcortical lesions observed by Seppili is here given in detail. The patient, a female, had Jacksonian epilepsy, well marked of the left side, and at the autopsy there was found a complete destruction of the nervous substance of the motor region of the right hemisphere and a descending degeneration through the internal capsule into the pyramid and the left lateral column of the cord. The opto-striate bodies were normal. The case seems difficult to explain, except by the hypothesis that under certain conditions the so-called cortical or Jacksonian epilepsy may occur without the intervention of the cortical centres—the view accepted by the Italian physiologist.

M. Soury is a sympathetic critic and is courteous and fair even when most disagreeing with the views of the author he criticises. His work is a valuable contribution to the literature of cerebral physiology, as affording a clear and satisfactory statement of certain phases of the still somewhat varying views on the subject of functional cortical localizations.

H. M. B.

Gunshot Wound of the Left Cuneus, with Right Homonymous Hemianopsia.

By J. T. Eskridge, M. D., Denver, Colorado. Reprinted from the Medical News, October 17, 1891.

The victim lived five days, and opportunity was had for the determination of the hemianopsia. The autopsy revealed complete destruction of the cuneus, without interference with other portions of the brain.

J. M. M.

Cape of Good Hope. Reports of the Medical Committee, the Vaccinating Surgeon, the Inspector of Asylums, and on the Government and Public Hospitals and Asylums, for 1889. W. J. Dodds, M. D., D. Sc., Inspector of Asylums.

On the 31st of December, 1890, there were 595 certified patients (310 Europeans and 285 natives) on the registers of the asylums and hospitals of the colony, an increase of 23 during the year. Excluding transfers, the number of admissions was 129; of discharges (including one escape), 54; deaths, 51. Of those discharged, 40 had recovered, 12 more relieved, and two were not improved. The recovery rate, excluding transfers, and calculated on the admissions, was 17.1 per cent. Six deaths were attributed to general paralysis; nine terminated other affections of the brain, including epilepsy; eight were due to senility, and the remainder followed various intercurrent physical diseases.

The lunacy system of the colony includes five receptacles for the insane, besides the jails and jail hospitals. Two hospitals have been condemned, and one only, the Graham's Town asylum, is said to compare favorably with well-equipped institutions of other countries. Many patients are confined in private houses, not subject to governmental control. The hospitals are visited quarterly by a local board, and semi-anually or oftener by the Inspector of Asylums. Legal admissions are made either under special rules promulgated by the Colonial Secretary, or in conformity with the lunacy law of the colony, which authorizes commitment only upon the perpetration of some criminal offence. Under the provisions of this Act thirty-one patients secured treatment through the friendly instrumentality of the following offences: murder, homicidal assault, assault and threatening assault, horse and sheep stealing, petty theft, incendiarism, intention to commit arson, breaking windows, willful damage, fraud, contravening a minor railway regulation, indecent exposure, willful trespass, abusive language, being idle and disorderly, being a dangerous lunatic, attempting suicide, insane with a suicidal intention. The opprobrium and injustice wrought by this primitive statute lead to evasion, and result in applications to the government for the admission of insane persons as into the ordinary hospitals of the country. "It has thus come to pass that about five-sixths of the cases detained in asylums are outside the provisions of the law, and are detained by virtue of these circular

It is also noted that 117 patients, including many recent and curable cases, were in custody during the year in jails, for periods of time ranging from a few days to a year and upwards. This deplorable condition of affairs leads to an earnest repetition of the plea of Dr. Dodds' previous report, that adequate accommodation be provided, and the lunacy law be amended and extended.

Despite unfavorable and discouraging circumstances, the work of the year has been progressive and characterized by marked improvement in the internal economy of the colonial institutions. Exercise in airing-courts has been abandoned for long walks; wards, "the homes of patients," have been brightened; dietaries have been enlarged; evening entertainments have been frequent; and every available method of occupation has been utilized for its value as diversion. There has consequently been a "gratifying diminution

in the amount of seclusion and restraint." It is predicted that in the future "greater attention will be paid to the medical and scientific aspect of insanity," and that the ideal of the service will be attained in the spirit of the motto. "to cure the curable, and to brighten the lives of those that cannot be cured."

J. M. M.

A Case of Fracture of the Twelfth Dorsal Vertebra, followed by Injury to the Spinal and Sympathetic Nerve-Supply of the Bowel in the Region of the Reo-Cacal Value; Intestinal Hamorrhaye and Death on the Seventh Day.

By J. T. Eskridge, M. D., Denver, Colorado. Reprinted from the Medical News, October 10, 1891.

The patient was struck from above by a cage containing brick, weighing about two thousand pounds. The body was bent backward, sharply arched at the junction of the dereal and lumbar vertebre, and the head carried between the feet. There was transient paralysis of the legs, without bladder or bowel complications. On the sixth day after the accident, a gastro-intestinal crisis followed the ingestion of cabbage, and death ensued. The autopsy revealed gangrene of the bowel for about six inches on either side of the ileocæcal valve, and destruction of the twelfth thoracic ganglia of the sympathetic nerve.

1. M. M.

The Prevention of Fire, Chiefly with Reference to Hospitals, Asylums and Other Public Institutions. By WM. PAUL GERHARD, C. E. Second Edition. Published by the Author.

This pamphlet emphasizes the value of sound building construction by contrasting it with defective and unsafe methods. The principles of fire-proof and slow-burning architecture, and the proper arrangement of chimneys, flues, elevators and stair-cases are set forth. Full consideration is given the establishment of night-watching service, fire-brigades, and the general equipment of public buildings necessary to the control of fire.

J. M. M.

Hallucinations in the Insane. By Edward B. Lane, M. D., Assistant Physician to the Boston Lunatic Hospital. Reprinted from the Boston Medical and Surgical Journal, September 10, 1891.

Hallucinations were present in 196 of 307 selected cases of acute insanity. Hallucinations of hearing were found in 175 cases; (of other senses without auditory hallucinations, in 21); of sight in 77 cases; of smell or taste in 13; touch in 4; viscera, 9; sense of equilibrium, 3.

In 160 cases of mania, melancholia and paranoia, auditory hallucinations were present in 127, or 79 per cent., and visual hallucinations in 47, or 29 per cent. In 61 cases of general paralysis, other organic brain disease, epilepsy and alcoholic insanity, auditory hallucinations were present in 26 cases, or 44 per cent., and visual hallucinations in 18 cases, or 22 per cent.

The relative preponderance of auditory hallucinations in the psychoses lends support to the theory that auditory images are more necessary to thought than others, and the presence of hallucinations of various senses in organic brain disease indicates a general distribution of sensory irritations. Educa-

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tion in the subjective nature of hallucinations might prevent the genesis of delusions and the necessity of commitment to a hospital, except in the degenerative psychoses, where permanent benefit is not to be expected.

J. M. M.

The Shattuck Lecture—1891—Neurasthenia and Its Mental Symptoms. By Edward Cowles, M. D., Ll. D., etc. Read before the Massachusetts Medical Society, June 9th, 1891. Boston: David Clapp & Sons, 1891.

In reading this pamphlet one is first of all impressed with the extraordinary care with which it is written. Dr. Cowles has brought to bear upon this most elusive and difficult subject a mind well stored, not alone through painstaking, analytical observation, but through the widest range of careful reading. As a result, we have here presented perhaps the most exhaustive and comprehensive exposition of the mental aspects of neurasthenia that has yet appeared. The clinical picture is clearly drawn; the bed-side symptoms are outlined succinctly; and a rational system of treatment is suggested. As a clinical study, this work is therefore important. There are numerous hints of practical import regarding diagnosis and treatment. It is satisfactory to see that little stress is laid upon specific medication. The physician who treats neurasthenia successfully must depend upon wise discriminative judgment; he cannot be a learned automaton. Advice as to the free use of diluents and hints as to the limitations of the rest cure are among the points of practical therapeutic significance.

But it must not be supposed that this is a mere clinical study. It is, in reality, something far more than this; it is a philosophical inquiry into the conditions underlying neurasthenia, and the relations of these conditions to other allied ones. It is essentially a synthetic work. There are many critical observers, many analysts; but few men are prepared by nature and education to coordinate, to classify. Fortunately, Dr. Cowles' well stored mind is of the coordinating type; so we have here presented not neurasthenia the clinical entity, but neurasthenia the somewhat widely varying condition, shading from healthy normality on the one hand into melancholia on the other. Its connotations are definitely set forth: there is no more of vagueness and uncertainty than must appertain to so complex a subject; yet, there are no sharp boundary lines drawn to offend one's sense of fitness. Sharp boundary lines are seldom found in connection with the functionings of so complex a thing as the human body; yet we too often see individual cases emphasized in descriptions as if they stood out alone from all else normal or abnormal. "Ha!" cries the enthusiast, when some slightly aberrant example of a familiar malady is brought to his notice," we have here a new type of disease." And so we go on transforming symptoms into diseases until one might almost expect every case to become a new "type."

Such a study as this of Dr. Cowles is a standing rebuke to these would-beclassifiers,—but, alas, a warning that will remain unheeded. This is an era of medical brick-making. It is not so much that the bricks are without straw as that we lack mortar with which to cement them together. From very profusion of basal material, the would-be structure of medicine is little better than a formless heap of bricks, unamalgamated, inchoate. We need now not more bricks so much as more mortar. Still, we are on the right track—that of scientific induction—and anything is better than the visionary, a priori deductions of our predecessors. But it is refreshing, in the midst of the wilderness of isolated cases with which medical literature is at present over-burdened, to find an occasional rational attempt to coördinate cases into a system; and it is especially gratifying in the present instance to observe so philosophical a result.

If one starts to speak less generally, one scarcely knows where to begin or end, so much is there to commend. The sections on "Pathology of Neurasthenia," on "Habit, Diathesis, and Idiosyncrasy," on "Autogenous Toxic Substances," etc., are far too good to be epitomised. Nor is it worth while to discuss definitely the parts of the work that lend themselves more readily to synopsis, for we feel sure that everyone who is sufficiently interested in the subject to read this notice will secure and read the work itself. There is one incidental assumption in the work, however, to which we wish to call attention, as a casual reader may fail to notice it. We refer to the predication of the transmissibility of acquired tendencies. Dr. Weissman would demurvery strenuously to this, but we opine that the majority of alienists would concur with equal emphasis.

H. S. W.

Multiple Cerebro-Spinal Syphilis. By B. Sachs, M. D., Professor of Mental and Nervous Diseases in the New York Polyclinic. Reprinted from the New York Medical Journal for September 19, 1891.

The author gives the histories of six cases, with illustrations of the lesions found in one. Naturally, the symptoms vary greatly with the localization of the disease. The diseases with which it is most likely to be confounded are multiple cerebro-spinal sclerosis and tubercular meningitis. From the former it can be distinguished by the absence of intention tremor, nystagmus and scanning speech; from the latter, by the much more rapid course of the tubercular affection and the fact that it is apt to be much less widely distributed, usually giving rise to a limited basilar or spinal meningitis, with formation of solitary tubercles. Syphilitic spinal meningitis may simulate tabes, and syphilitic disease of the meninges of the convexity may be difficult or impossible to distinguish from general paresis. The author thinks this may account for some of the cases of prolonged remission, or complete recovery that have been reported in the latter disease.

Myotonia and Athetoid Spasm. Clinical lecture delivered at the Philadelphia Hospital. By Charles K. Mills, M. D., Neurologist to the Hospital, and Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic. Reprinted from International Clinics, April, 1891.

The first of the two cases described in the lecture is that of a man, forty years of age who has suffered since childhood from clumsiness and stiffness in muscular movements, especially of the hands. For the past seven years he has frequently fallen in walking, without loss of consciousness, apparently from a sudden giving way of the muscles. At first this seemed to be confined to the right side, but of late he thinks that both sides are implicated. It seems to be implied, though it is not stated, that his spastic trouble has been

much aggravated since he has been subject to these attacks. At present he has difficulty in initiating any muscular movement. If he attempts to rise from a chair, his muscles stiffen, and he can only push himself to the erect position by a strong effort. He cannot arise when sitting or kneeling on the floor, without the help of some one who will fairly lift him to his feet. Opening the hands when closed requires a strenuous and prolonged muscular effort. Closing the mouth when opened may require a minute's time, assisted by pressure from the hand. He walks with a stiff and shuffling gait; after going a short distance the muscles act with more freedom, but soon become exhausted, stiffen, and put him in danger of falling. He has but little strength, and cannot grasp anything with the hands. Speech is indistinct. He suffers from pain in the head and lumbar region. The cutaneous sensibility to pain in the lower extremities is increased; tactile sensibility does not seem to be very much affected. Knee-jerk and allied phenomena are absent. The muscles respond to both the galvanic and faradic currents, with a tendency to persistence of the contractions. The wave-like contractions said by Erb to be characteristic of Thomsen's disease were not obtained. The muscles are usually large and firm and presented but slight mechanical excitability. The author is inclined to consider the case one of Thomsen's disease, although he does not express himself positively on this point.

The second case is one of athetoid spasm and myotonia on voluntary effort, in a man fifty years old, who suffered eight years previously from what was thought to be a sunstroke, followed at irregular intervals, for several months. by fits, the precise character of which is not ascertained. The first of these left him partially paralyzed on the left side, and, at some date which cannot be positively determined, he began to be troubled with spastic and athetoid movements of the left side. At present, any attempt at voluntary movement brings on a combination of tonic and athetoid spasms, most marked on the left side, but extended in a less degree to the right. The athetoid movements involve principally the muscles of the left hand, the right being slightly affected in the same way. The other muscles are thrown into more or less rigid contraction. He is able to walk with great effort. There are considerable areas of cutaneous anæsthesia, most extensive on the left side. Kneejerk is increased in both legs, producing tonic spasm of the extremity. Muscle-jerk, front-tap and ankle-clonus are present. The author is inclined to locate the lesion in the neighborhood of the optic thalamus.

Unilateral Ophthalmoplegia, Probably Dependent upon Thrombosis of the Cavernous Sinus with Associated Meningitis. By the same author. Reprinted from the Philadelphia Hospital Reports, Vol. 1, 1890,

The patient, a woman, 55 years of age, had, at the time of admission, complete paralysis of the entire muscular apparatus of the left eye, with extensive anæsthesia in the regions supplied by the fifth nerve. Vision was good in the affected eye, but was lost in the following week. She was in a dull mental condition. Her illness had begun several weeks previously, with neuralgic pains in the left side of the face and head, and the ophthalmoplegia had been first observed about a week before admission. No history of syphilis could be obtained. Shortly after admission, slight ptosis, orbital pain and

haziness of vision developed in the right eye. Great improvement under the use of large doses of sodium iodide with mercurial inunctions. The author quotes a case of Coupland, presenting many points of similarity, in which thrombosis of the cavernous sinus, with basic meningitis, was found postmortem, and is of the opinion that his case was of the same nature.

The Diagnosis of Incipient Melancholia. An Abstract of a Lecture delivered before the Class of the Kansas City Medical College. By S. Grover Burnett, A. M., M. D., Kansas City, Mo., Lecturer on Clinical Diseases of the Nervous System in the Kansas City Medical College. Reprinted from the New York Medical Journal, for May 2, 1891.

The trio of symptoms on which the author relies for the recognition of simple and agitated melancholia in their early stages are mental depression, insomnia, and the pain in the back of the neck described by Gray, which the author says he had observed prior to the publication of Dr. Gray's article, and for which he proposed the name "nuchalgia." He illustrates his position by histories of two cases.

Unrecognizable Brain Lesions. By Hugh B. Meredith, M. D., Danville' Pa. Reprint from the Atlenist and Neurologist, July, 1891.

Report of a case of epilepsy, which remained under treatment for three years without presenting any unusual features, and then developed right hemiplegia, aphasia, and mental hebetude. These symytoms increased, and she died comatose in about three weeks. The autopsy revealed a sarcoma of the size of a pigeon's egg in the left operculum, with a cyst containing seven drachms of serum extending upwards and backwards from it, under the ascending frontal, ascending and superior parietal convolutions.

Assuming the epilepsy to have been caused by these lesions, the author remarks upon the generalized character of the fits, and the absence of paralytic symptoms until shortly before death.

Ueber Influenzapsychosen. Von Dr. Richard Jutrosinski in Strasburg. Sonderabdruck aus der Deutschen Medicinischen Wochenschrift, 1891, No. 3. [The Psychoses of Influenza. By Dr. Richard Jutrosinski, of Strasburg. Reprint from the Deutsche Med. Wochenschrift, 1891, No. 3.]

The author calls attention to the rather remarkable fact that, up to the recent epidemic, medical literature is almost completely silent as to mental disturbances occurring in connection with influenza. Rush seems to have been the first to mention this association in writing of the epidemic of 1790. "Several persons who were affected by it, had symptoms of madness, one of whom destroyed himself by jumping out of a window." A case of mania seen by Bonnet in 1837, and one of dementia reported by trichton-Browne in 1874, complete the list. In contrast with this, reports of insanity in connection with the recent epidemic have been so numerous, that it must be looked upon as a pretty frequent complication. He tabulates 104 cases, 20 of which were observed in hospital, dispensary and private practice in Strasburg, and the remainder have been collected from medical periodicals, with brief histories of the Strasburg cases. The following are the principal results of his investigation:

In regard to the period at which the mental symptoms appear, the information is rather scanty, but it seems that it is most commonly during convalescence, although it may be the first indication of the attack of influenza. The male sex predominates, 58 out of 98 cases being males. The proportion of patients in the different periods of life seems to be about the same as in insanity from other causes. As to the form of insanity, he divides the cases into the three classes of acute delirium, delirium tremens and true psychoses. Of the first there were 28 cases, of the second 15, and of the third 58, of which 15 presented symptoms of mania and 38 of melancholia. Among the latter the hypochondriacal character predominated. Predisposing causes were found in 83 of the cases, including heredity, acquired predisposition, previous attacks of insanity and other nervous disorders, intemperance, complicating diseases, fright and anxiety. In many instances a combination of these influences existed; only 21 of the 104 could be attributed to the influenza alone. Two patients committed suicide and one homicide during the attack. Influenza occurring in the insane has almost uniformly an injurious influence on the course of the psychosis. The prognosis of insanity resulting from influenza is generally favorable.

History of Circumcision from the Earliest Times to the Present. Moral and Physical Reasons for its Performance, with a History of Eunnchism, Hermaphrodism, etc., and of the Different Operations Practiced upon the Prepuce. By P. C. Remondino, M. D. Philadelphia and London: F. A. Davis, Publisher, 1891.

The author of this volume, which is No. 11 of the Physicians' and Students' Ready Reference Series, exhibits in its 321 pages an amount of ability, research and labor that might have been devoted more profitably to a better cause. Not that we underrate the importance of circumcision as a surgical procedure, or deem it supererogatory to expatiate upon its benefits, but it scarcely seems justifiable in a scientific monograph to regale the reader with the smutty jokes which fill and mar this otherwise useful treatise. It is positively the most vulgar medical work we have ever seen.

Atlas of Clinical Medicine. By Byron Bramwell, M. D., F. R. C. P., Edin., F. R. S., Edin., Assistant Physician to the Edinburgh Royal Infirmary, etc., etc. Vol. I, Part II. Edinburgh: Printed by T. & A. Constable at the University Press.

The second part of the first volume of this superb Atlas fully sustains the merit of its predecessor as well as the reputation of its author. It deals chiefly with Addison's Disease and Hodgkin's Disease. The text is full, and the former affection, being one to which Dr. Bramwell has devoted special study and laborious research, is treated most exhaustively. One cannot commend the colored plates too highly. Molluseum Fibrosum, Xeroderma-Pigmentosum and Mania are also illustrated. The plate representing "Mania" is an excellent tinted crayon, and a fit companion to the other types of insanity that appeared in Part L. The Atlas is worthy a place in all asylum libraries.

Prichard and Symonds: in Special Relation to Mental Science: with Chapters on Moral Insanity. By D. HACK TUKE, M. D., LL. D. London: T. & A. Churchill.

The profession will be greatly obliged to Dr. Tuke for this very interesting though moderate brochure, (116 pp. 8vo.,) which, besides the papers on Dr. Prichard and Dr. Symonds, contains two more papers by the author, one read at the meeting of the British Medical Association at Belfast, in 1884, on "Moral Insanity," and the other at Cork in 1885, before the Medico Psychological Association on a "Case of Congenital Moral Defect." The discussions at the several meetings, of which the papers read were the text, are also given in full. It cannot be denied that Dr. Tuke has here furnished a substantial contribution to the study of a subject which has been and is of wide and discursive controversy; one upon which, as Cicero would say, "it is easier to find a beginning than an end of speaking"—we might perhaps add—on which it is easier to find plausible arguments than a definite scientific conclusion.

Whatever Dr. Tuke writes is always very readable, but he tells us that it was the circumstance of the Association meeting at Bristol that called out this tribute to the two eminent men whose names were associated with that place. It is not often the place of meeting adds so much zest to the subject of consideration; but in this case, the genial biographical touches excited as keen a relish as the evolution of the doctrines which these men were the first to suggest and formulate in some degree.

Dr. Prichard was well known in the scientific world for his extensive researches in ethnology and philology, and these certainly in no way detracted from the value of his studies in Nervous Diseases. Dr. Tuke believes that had he left either of these departments untouched he would still have gained the highest point in the one he might have chosen. Esquirol himself acknowledged his indebtedness to Dr. Prichard. Dr. Tuke exhibited at the meeting at which these memoirs were discussed, a letter addressed to his father by Dr. Prichard as long ago as 1834, in which he inquired whether the former had observed at the York Retreat any cases of moral insanity. "By that term," he explained, "I distinguish the mental state of persons who betray no lesion of understanding, or want of the power of reasoning and conversing correctly upon any subject whatever, whose disease consists in a perverted state of the feelings, temper, inclinations, habits and conduct."

Here, doubtless, the point of departure, which made Dr. Prichard's inquiry the starting point of a new doctrine, is the assumption that there may be insanity without any lesion of the understanding or the reason. Of course this doctrine was at the time a surprise to all specialists, and is not even yet accepted by all, notwithstanding what both Pinel and Esquirol had said about manie sans delire, or raisonnante. But this doctrine was followed up and strongly supported by Dr. Symonds, especially as he was led to investigate the subject more thoroughly in connection with the celebrated Townley murder trial. The following passage touchingly describes his conception of moral insanity, where he speaks of "the fate of those who are afflicted not with aberrations of judgment, which are detected by even the simplest of sound headed observers, but with marked obliquities of feeling which are so easily

confounded with bad passions wilfully indulged, and with evil habits wilfully pursued."

Dr. Symonds wrote some very able and suggestive papers on questions of psychology and physiology, such as involuntary muscular action, and reflex impulse of the cord and brain, though we do not understand him to connect these things with the question of moral insanity. Yet, hysterical action and the strange sympathy of imitation in what we might call an epidemic of suicides or motiveless crimes, without any epileptic neurosis, presents a difficult subject parallel to, but by no means to be confounded with, the special characters of moral insanity.

The truth is, that which has made definite conclusions so difficult to be reached on this whole subject, though science is supposed not to be deterred by consequences, or to take account where psychological dynamite may fall upon society, is the question of responsibility, and the obvious abuses that may creep in from this source to the administration of justice in our courts of law. Dr. Symonds thinks the medical expert has nothing to do with the question of responsibility, but that that is for the courts alone; the fact of sound or unsound mind alone is for the expert. Dr. Tuke, however, as well as Prof. Maudsley, who, himself a strong advocate of moral insanity, shows a little more heat toward lawvers and judges than one might expect to find in the "dry light" of science, * recommends extreme caution in the adjudication of these cases, to guard against the abuses to which this doctrine of moral insanity is manifestly liable. For our part, if the judges of our courts are to be called upon to distinguish between what are usually called insane people and cases of mere moral perversion, "without any lesion of reasoning faculties," we opine that they will be for compelling experts to take the rssponsibility of deciding the question of responsibility themselves, which is certainly as easy as it might be to say whether the criminal's will was concerned in his crime, or whether, as in the case of drunkenness, it was by his own fault, because from long inveterate habits of evil, both his will and conscience were paralyzed.

It is pleasant to read in these professional memoirs of Dr. Prichard and Dr. Symonds, that while they accepted the evolutionary hypothesis, they did not deem it, any more than Mr. Darwin did, as incompatible with the idea of a creator—an original personal creative force of the universe, as, according to the etymology of all languages, the only absolute Ens, out of which all phenomenal things are ex-istences—a conclusion to which the modern conceptions of the correlation and unity of all forces would seem to lead up. And, as Dr. Tuke says, they accepted the idea of a "planning creator," which implies, as Mr. Mivart has shown, a teleological evolution, which the mere materialist must deny, with Huxley and Haeckel. At any rate this element of personality adds that flavor of literary humanism to the abstract scientific character which puts it in touch with a world-wide sympathy and appreciation in the general mind.

As to Dr. Tuke's own paper on Moral Insanity, read at Belfast, it is an able excursus on the general subject, illustrated by several examples; and the particular "Case of Congenital Moral Defect, with Commentary," presented

^{*} Responsibility in Mental Disease, p. 171.

at the Cork meeting, is certainly a very striking one, furnishing most of the elements on which a scientific diagnosis might be based, and is fairly entitled to be regarded as typical and crucial on this question until a still stricter analysis can be formulated.

Dr. Tuke says the "central idea and contention of his papers," that cases occur in which "the most important factor of the mental condition is, not loss of memory, not delusion or hallucination, not any deficiency of talent or genius, not any lack of mental acuteness, and certainly no incoherence of ideas or language, but a deficiency or impairment of moral feeling or selfcontrol, such being either the development of a character natural to the individual (congenital) or a departure from it which contrasts most strikingly with its former traits." He does not think it very material whether we name it with Pinel, manie sans délire, or reasoning mania, or adopt Parigot's term diastrephia, or "perversion." And yet it helps to obscure a matter already obscure, that Westphal says he scarcely remembers a case of moral insanity which was not connected with epilepsy-either the latent diathesis, as is more common than generally supposed, or the phenomenon itself. Certainly his including cases of so-called "irresistible impulse" along with these that have a connection with latent epilepsy, looks very strongly to the temporary "removal of the inhibitory power of the higher centres;" but query, should they be comprised in the "class of affections which Prichard had in view?" It may be a question how far a "fixed idea" is to be taken as connoting a "disorder of the intelligence," but we should imagine it at least problematical whether fixed ideas may not generally be associated with the moral feelings that indicate what Dr. Tuke gives as a more correct definition of the unfortunate term moral insanity-that is, "rather a weakening of the higher centres involving paralysis of voluntary power, and so permitting an excessive and irregular display of feeling in one of the lower forms it assumes. This view, which transfers the seat of mischief from the feelings themselves to volitional or inhibitory power, might suggest the more accurate term of inhibitory insanity." (p. 22.) He adds that the higher levels of cerebral development concerned in the exercise of moral control, (as assumed by Jackson and Spencer.) are imperfectly evolved from birth, or have become diseased and more or less functionless, though intellectual functions are not seriously affected, but the emotional and automatic are left to fuller play than would be normal.

All this is "important if true"; and must be left to further psychological research and the judgment of specialists in cerebral study. In the discussions that ensued, it appears that the papers on the whole were well received. The Superintendent of the Broadmoor Criminal Asylum, whose experience would of course be looked to for much light on the subject, acquiesced in the general statements, but was not prepared in all cases to substitute treatment for punishment, though the latter doubtless had to be much modified in its character. He alluded to the diminution of the criminal occupants of prisons, with the corresponding increase in the population of asylums, as a consequence of the more humane views; but he cordially assented to a very incisive and suggestive remark of the President, (Dr. Yellowlees,) that as a matter of fact most of the cases of so-called moral depravity or confirmed moral insanity in the course of years deteriorate and sink into dementia at last.

Here is a fact of actual experience that throws grave suspicion upon the theory that the mental faculties of the man can remain unaffected or be free from incipient disease, while the personality of the individual is profoundly perverted in "the higher levels of cerebral development." The statement of Dr. Yellowlees is surely quite comprehensive, and may be taken as sufficient to include the mass of cases, even on Dr. Tuke's definition: "In the individual the perversion is usually congenital, or associated with arrested development." In the typical case of "congenital moral defect," commented on by Dr. Tuke with very clever use of his well known literary resources, and some illustrations from Herbert Spencer, on arrested evolution in the brain, leaving the intellect and moral nature independent of each for lack of "coördination," we cannot but regard it as a case of original (primary) moral imbecility, which might have been disciplined under ordinary family surroundings from the start, and as Dr. Rayner said, a whole life of "education in the advantages of moral insanity." Enough is not disclosed of the influences brought to bear upon him in his infancy. It would seem there were ' none that could have tended to develop personal affection for any one. He had little mental training and that only from a private tutor, (his father,) so that he acquired no sense of the social relations. His watching for opportunities to commit crime, as hiding for a passer by, and stealing the food of a patient, shows that he had a self-directing power, and his behavior under surveillance proves that he had a sense of consequences. The discussion on this case seems to have been little more than the relation of similar instances.

Dr. Tuke himself, in summing up, admitted that it was seldom indeed one could positively declare the total absence of intellectual disorder, but if any one held that the will itself is an intellectual function and the volitional power is wrecked with the moral sentiments, then cadit questio.

w. T. G.

## NOTES AND COMMENTS.

THE SHEPPARD ASYLUM, BALTIMORE, Md., is now open for the reception of patients.

Medical Education in the Australasian Colonies.— The regular correspondent of the Journal of Insanity for the Australasian Colonies reports a highly satisfactory condition of affairs at the University of Sydney in respect to Psychological Medicine. All students in their last year in medicine are compelled to follow the systematic course of instruction in psychiatry, and to attend for clinical work at recognized hospitals for the insane. The standard of a recognized hospital is largely dependent upon the number of acute cases admitted and the mode of treatment adopted. The necessity for special knowledge was very apparent, few physicians having had the opportunity of acquiring any knowledge of insanity during their student training.

The University of Adelaide (South Australia) has a course similar to that at Sydney, both being compulsory for the degree of Bachelor of Medicine. The University of Melbourne makes psychiatry a compulsory subject for the higher degree of M. D. only—a plan involving the obvious objection that many men having obtained the M. B. do not proceed to the higher degree, and therefore miss special instruction in insanity. The course for the baccalaureate in medicine in the Australasian Colonies covers a period of five years, and the standard is high throughout.

Special Provision for Epileptics.—The State Charities Aid Association of New York makes a strong plea for the passage of the Brown bill looking to the establishment of a special institution for the medical treatment, care, education and employment of epileptics. It appears from the Report of the State Board of Charities that there are in the county poorhouses and city alms-houses about five hundred epileptics, for whom there is no special medical treatment, little employment and no training or education. Such an institution as that con-

templated in the bill would undoubtedly prove a source of great benefit to this unfortunate class of sufferers, and it is thought that it would also be a source of economy to the State. Under appropriate treatment and education many dependent epileptics might recover, or at least become sufficiently restored in health to admit of their return to their families. It is also claimed that, under proper training, if means for employment were furnished, they might be rendered self-supporting, or partially so, while undergoing treatment in such an institution, and on leaving it earn their own livelihood. Furthermore, much could be expected in the way of distinct scientific gain from the facilities thus afforded for special study of the disease. There are epileptic colonies in successful operation in Germany, Holland, France and Switzerland, and in our own country the State of Ohio is entitled to the credit of having established the first public institution for the separate care of epileptics.

The suggestion of a separate institution for epileptics in this State is not new. Dr. John Ordronaux, the first Commissioner in Lunacy, repeatedly called the attention of the legislature to the special needs of this class. Year after year he pointed out, in his reports, the terrible effects of epilepsy upon the moral as well as intellectual character of its victims. No disease more surely saps the foundations of moral stability and intellectual growth, and one has but to analyze the cases admitted to the State Asylum for Insane Criminals, at Auburn, to realize very forcibly that the history of epilepsy is the history of violence, of crime, of homicide. It is rarely that one takes up a newspaper now-a-days without finding some account of violence done by a murderous madman, who, upon investigation, proves quite often to be an epileptic. It is high time, therefore, that society should protect itself against such assaults, and the most humane, as well as the most effectual means, of such self-defense lies in the protection of the victims of the disease themselves, by providing for them such special and separate shelter, care and custody as the Brown bill implies.

It is safe to say that this wise measure of relief will receive the hearty support of the State Commission in Lunaey and the State Board of Charities.

A CRISIS IN TEXAS .- During the last summer a water famine occurred at the North Texas Hospital at Terrell, following an unsuccessful attempt to procure water from a boring for an artesian well. The boring had reached a depth of over two thousand feet, the appropriation was expended, the pipes were dry, all resources had been apparently exhausted, and the authorities of the institution were overcome by consternation. The events of this critical period are thus feelingly portraved by Dr. Preston, the superintendent: "The daily cry was 'water, water! No water to bathe the patients! No water to clean the wards! No water to wash the dishes!' etc., etc. It became unbearable. I thought of resigning my position. The Board of Managers began to get weak-kneed, and concluded they had a greater load than they could carry. Finally we consulted together, and concluded to bore for water ourselves. An old abandoned pump was resurrected and the engineers told to put it in working order, and to insert piping to a depth of 120 feet, where there was a tradition [sic] that there was an underground lake or river. (This was on the authority of Col. Jim Harris. who sold this valuable tract of land to the State.) The engineers demurred, and said they had tried that two years ago and failed."

Mindful, perhaps, of Ben. Butler's advice to Parnell, to "hang on!" Dr. Preston issued the order to "go ahead anyway." After a month of day and night work, and after "many failures, break-downs and disappointments," it was announced that water was at hand. "The problem was solved, and now there is a flow of 103,600 gallons per day."

The readers of the JOURNAL will unite with its editors in the hope that the spirits of the Texas Board of Managers may never again fail for want of water, and in congratulations to Dr. Preston upon the steadfast faith in Col. Jim Harris which brought a happy issue from affliction.

LUNACY AFFAIRS IN IRELAND.—The condition of lunacy affairs in Ireland is clearly set forth in recent reports of the Inspectors of Asylums, and of the Committee on Lunacy Administration appointed by the Lord Lieutenant. The number of patients under care on January 1, 1891, was 16,251, an increase of 225 during the year. In the decade from 1880 to

1890, the proportion of registered lunatics increased from 1 in every 401 to 1 in 289 of the estimated population of the country. This difference is attributed in part to the registration of lunatics who have been previously enumerated, though insane, with the general population, and in part to the decrease in population due to emigration. The refusal of other countries to admit defectives of any kind, leaves "an undue proportion of the infirm, the insane, the imbecile, the idiotic, the deaf mutes, and the blind, at home." It is estimated that if the population of 1890 equalled that of 1880, this apparent increase would have been reduced by two-thirds, leaving a still smaller proportion of recent cases. It is not strange that the impoverished and unsettled condition of the country, acting, as is suggested, upon the naturally impulsive and excitable temperament of the people, should be followed by an increased ratio of occurring insanity.

Attention is directed to the crude statutory provision for commitment of the insane, which results in the admission of seventy per cent as "dangerous lunatics, not because the patients are dangerous (for the number of really dangerous patients must be insignificant) but, first, because this order is mandatory, while under the other forms the patient may or may not be admitted, according to the will of the governors; secondly, under this form only are means provided for the conveyance of the lunatic to the asylum, as under it he becomes a criminal, and is taken charge of by the police (after being arrested), and, thereby, it alone provides for the payment of the medical officer who signs the certificate of insanity."

To meet the necessities of the constantly increasing class of chronic insane, and to relieve hospitals whose space is in demand for the treatment of acute cases, several plans are discussed by the Commissioners. Several work-houses are available, but the Commissioners wisely discountenanced their use, estimating the expense of necessary structural alterations as greater in the end than that of the construction of new and cheap but properly arranged buildings, to be annexed to existing district asylums. The Scottish boarding-out system is also favored for the harmless cases, twenty per cent of whom might be thus accommodated.

The Second Report on Lunacy Administration is made an

especially attractive document by an impartial and exhaustive discussion of the inquiry, "Whether any amendments of the lunaev laws are desirable as regards Ireland." It appears to the Commissioners that desirable changes are "so numerous and so radical," that a new general Act "dealing with all matters relating to lunacy," should be obtained, and their report in fulfillment of the spirit of the inquiry, outlines a new lunacy law, with explanation of what its "machinery and provisions" should be. The legislation proposed by the Commission treats at length of the personal rights and property of lunatics, and suggests a system of central control, based upon the experience of years with the operations of the English and Scotch statutes. The troublesome problems arising from the adjustment of the varied relations of Local Boards and the General Lunacy Commission are treated with great comprehensiveness. It is held that power should be given the Central Board to enforce observance of the requirements of law, but, though enforcing powers are desirable, they should not be too large. Upon this subject the comments of the Commission bear repetition: "It would be a mistake unduly to depreciate the value to such a board of some power to enforce its views and the provisions of the law it administers. The possession of such a power must often shape events where there is no resort to it—not even by allusion. A knowledge that such a board can in certain matters enforce what it recommends may occasionally prevent the birth of opposition. But such a power should not be largely given, and it certainly should not be largely used. There ought not to be much difficulty in leading a District Board to hold substantially the views of the General Boardthe real object of both boards being the same. Where a difference occurs it does not follow that the General Board must be in the right. Indeed, neither board may be in the right, and the thing which is best to do may be learned by discussion. The irritation often raised by peremptory orders from a Central Board, which must be obeyed immediately and without question, should as far as possible be prevented."

The fairness shown in the above quotation reveals the tenor of the report. It is suggested that the outline of the law proposed by the commission would suffice, *mutatis mutandis*, for any government in need of complete lunacy legislation, and this claim in behalf of the report is well sustained by its general excellence.

FIRE AT THE EASTERN MICHIGAN ASYLUM.—No asylum fire has threatened more serious consequences, and has been more happily free from personal injury and loss of life, than that which raged at the Asylum at Pontiac, Mich., on the 26th of December last. At about half-past ten o'clock flames were seen in one of the towers of the north wing, by Dr. Taylor, an assistant physician, who was on his way to the office upon the completion of his morning visit. In response to the alarm, the employés quickly organized, and two hundred patients, many violent and demented, were removed without accident or escape, from wards immediately threatened. As a precautionary measure other wards were emptied, and after the safe disposition of patients, "the work of fire-fighting began in earnest."

The following account of the progress of the fire and the incidents of the day is extracted from the *Detroit Tribune*:

Ladders were raised, the asylum fire engine got out and the battle began. The fire had broken through the scorched roof to the south of the tower where the flames were first seen, and a strong gale from the north-west spread the blaze toward the administration building. This was soon on fire and burned slowly but stubbornly. The Pontiac fire department was called for and responded immediately, and at the same time word was telegraphed to Detroit for an engine. On the arrival of the Pontiac department ten lines were pouring forth their streams, taxing to its utmost capacity the eight-inch main that supplied the asylum.

Brave work was being done, but it soon became evident that the flames were gaining headway.

At 1.20 p. M., aid arrived from Detroit, by a special train, having on board an engine and hose cart and six experienced firemen. This arrival did much to encourage the asylum and the Pontiac departments, and from all directions the streams were poured in upon the flames. The hydrant from which the asylum fire engine was drawing water soon burst, rendering the engine useless, as the other hydrants were too large. The only engine then working was the Detroit one, the other hose being attached to the hydrants, through which the water was forced by a pressure of 120 pounds at the waterworks.

Shortly after the arrival of the engine from Detroit it was seen that the administration building was beyond control, and attention was then turned toward saving the south wing, occupied by male patients. Two holes were hacked through the roof and streams of water turned in. This, with the fire-proof doors separating the wing from the center of the building and the change in the direction of the wind, saved the fire from spreading south, and no damage, except by water, was done to that wing.

On the north wing, the wind was in conjunction with the flames. The roof fell in and from hall 16, the upper flat, the fire burned through the floor to the next flat, hall 13. Every effort of the firemen working on this wing was directed to stopping the flames from entering halls 12, 15 and 18, and the north additional wing, and also to save, if possible, hall 10, which is situated immediately under hall 13. In their efforts to save the north additional wing they were successful, owing to the fact that fire-proof doors separated this from the original north wing.

At five o'clock the fire was so far under control that men were put to work replacing in the unburned portions the bedding and furniture which had been removed early in the day. And, though it was late at night before the water was entirely turned off, at 7.30 the fire was practically out.

Six wards were burned out, and after the fire all but nine of the forty-three wards were in suitable condition for occupancy. The walls were not seriously injured, and the fire touched the ground floor only in the administration building.

A meeting of the Trustees of the Asylum with Governor Winans was held on the following day, and it was decided to rebuild at once. The loss has been variously estimated from \$75,000 to \$150,000, and is not covered by insurance. The most plausible theory of the origin of the fire, proposed by Dr. Burr, and acquiesced in by his associates, is that the high wind started the dry dust in the attic, and that this dust was ignited by a spark from a short circuit of the telephone wires.

Modestly avoiding reference to his own tircless and unceasing energy, Dr. Burr writes to the JOURNAL: "The devotion, intelligence, enthusiasm and courage of the staff and corps of employés, averted loss of life or serious accident. The same qualities now uphold the administration and are rapidly bringing order out of chaos."

Another Fatal Assault upon an Asylum Physician.—
It is but a short time ago that it became our melancholy duty to record the violent death of Dr. Lloyd at the hands of an expatient of the Kings County Asylum at Flatbush. N. Y. Now another name is added to the death-roll in the martyrdom of Dr. W. W. Reeves, Superintendent of the State Lunatic Asylum at Austin. Texas. In the absence of authentic details of the tragedy from other sources we print below the account given in the New York World, in its issue of December 30, 1891:

Austin, Tex., Dec. 29.—Dr. W. W. Reeves. Superintendent of the State Asylum for the Insane, was shot and instantly killed to-day by Henry Purnell,

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son of ex-United States Marshal Thomas Purnell. The circumstances are almost precisely similar to those of the Lloyd-Dougherty tragedy in Brooklyn a few months ago.

The murderer has for about ten years shown signs of insanity, and more than once during that time he has been confined in the asylum. He was sent there about a year ago, and remained until about a month ago, when he was discharged, "cured." He has conducted himself quietly since, but it is known that he has during the past two weeks been making threats to kill certain

prominent men who are now in Washington city.

This forenoon Purnell obtained a double-parrelled shotgun and carefully loaded both barrels with buckshot. He then took an electric car for the Insane Asylum, reaching there about 10 o'clock. Some photographers were in the yard, getting ready to take a picture of the building, and Purnell, knowing them, stopped for a moment and chatted pleasantly. He then proceeded to the main entrance of the building, where he met Dr. Reeves coming out. The doctor spoke kindly to him, and was descending the steps when Purnell raised his gun and emptied both barrels into the doctor's body. Dr. Reeves never spoke, but sank quietly to the ground and expired in a few moments.

Purnell took a cab and came back down-town and surrendered to the officers.

Dr. Reeves was born in Grayson County, Va., on June 23, 1847. His great grandfather was a captain under Col. Cleveland in the revolutionery war. His father was clerk of the Superior Court and afterwards sheriff of Grayson County Va. Dr. Reeves' parents are still living in Jefferson, N. C. The doctor was graduated at the College of Physicians and Surgeons in Baltimore in 1878. In 1879, 1881 and 1886 he attended lectures at the University of Louisiana. New Orleans, and in 1888 the Polyelinic in New York city. He removed to Texas in 1870, and located at Willis Point, Van Zandt County.

His first marriage was to Miss Corda A. Hart, of Gilmer, Tex. His second wite was Miss Maggie Knotsch, of New Orleans. They have five living children. Dr. Reeves served the Confederacy in a North Carolina regiment. He was the Vice-President of the State Medical Association, ex-President of Van Zandt County Medical Association, permanent member of the American Medical Association, charter member of the Southern Association, and ex-President of the Board of Medical Examiners for the Seventh Judicial District. He was past master of Willis Point Lodge, No. 422, F. and A. M.; past high priest of Willis Point Chapter, No. 102, R. A. M.; a member of Dallas Commandery, No. 6, Knights Templar, and past deputy grand master for the Twenty-second and Twenty-sixth Districts, I. O. O. F.

THE ALVARENGA PRIZE.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1892. Essays intended for competition may be upon any subject in Medicine, and must be received by the Secretary of the College on or before May 1, 1892. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College.

## HALF-YEARLY SUMMARY.

ILLINOIS.—The Hospital at Kankakee has recently had a valuable and rather unusual present in a collection of seventy-eight pictures by the celebrated artist G. P. A. Healy, presented by himself. They include copies of several of his best known pictures, among them full-sized portraits of various American and European celebrities, besides a large number of landscapes and figure pieces and sketches.

—The opening of the new annex building of the Illinois Central Hospital occurred on August 17th. On that date the first transfer of patients from other institutions was made, to comply with the redistricting of the State, as ordered by the last Legislature. The new building, known as Annex South, is specially designed to accommodate male patients, while the Annex North, (opened in 1885, and used until August last for both male and female patients,) is now occupied by female patients only. Each building has accommodations for 300 patients. The female department is in charge of Dr. F. C. Winslow; at the male department is Dr. F. P. Norbury.

The new amusement and chapel building, which is situated between the male and female departments, will be opened soon. It is fifty by ninety feet, including the stage, has seating capacty for five hundred and thirty persons. It is artistically decorated; incandescent electric lights entering largely into the effects produced. The stage and fixtures are modern in arrangement. It is seated with portable opera chairs, and provided with a grand pipe organ, built at a cost of \$2,500 by Johnson & Sons, of Westfield, Mass. The Board of Trustees are justly proud of this building, for after erecting a handsome and substantial asylum building, they had money enough left, out of the original appropriation of \$120,000, to build this hall, furnish it as above stated and still have \$2,200 to revert to the State Treasury.

The institution is soon to be lighted throughout by incandescent electric lights, the contract having been recently let to the Western Electric Company of Chicago.

Further improvements about the institution during the past year have been the addition of a slaughter-house, a new store building, a dynamo-room, the laying of 2,000 lineal feet of sandstone walk, six feet wide, extending from the main building to the street and to the annex buildings, and the grading of the lawn and laying out of new walks, roads, &c.

Indiana.—The Hospital at Evansville now accommodates 382 patients. A large store-house has been erected, and there has been rapid progress in improvement of the grounds and in interior furnishing.

lowA.—Dr. Gershom H. Hill, Superintendent of the Hospital at Independence, takes an active part in a general effort to inaugurate a settled policy of State care during the coming biennial session of the State Legislature.

Upon this subject Dr. Hill sends the following communication to the JORRNAL:

"The superintendents of the hospitals in this State are all firmly in accord with the policy of the State of New York in caring for all the insane who need public care in State institutions; but Iowa, like other States, finds it difficult to increase the capacity of her State institutions fast enough to accommodate all the insane, therefore when our wards become crowded, according to law, the trustees, on the recommendation of the superintendent, discharge certain 'old settlers,' as harmless and incurable, to be removed by the county authorities and cared for by their friends, or in the county poorhouses. A number of the ninety-nine counties in Iowa have separate buildings on their farms for the insane, but they are hardly worthy of the names of county asylums, and I have always discouraged the erection of such structures by county authorities. We have no State Board of Charities in Iowa. The only substitute for it is a Visiting Committee composed of three persons: two men and one woman. Dr. F. McClelland and the lady member are physicians. They are appointed by the Governor, and serve during good behavior. It is their duty to visit the State hospitals for the insane once a month in order to ascertain if the patients are properly cared for, and to look out for their interests. They do not visit any other State institutions, and they have no authority, and can receive no compensation for visiting county institutions."

Kansas.—At the State Asylum at Osawatomie, a detached building for men, with capacity of three hundred, is in process of construction, and is expected to be ready for occupancy on the 1st of June next. The basement story contains kitchen, scullery, pantries, cooling-rooms, store-rooms and general dining-room. The first floor is divided into four wards, all day-rooms; the two stories above are associate dormitories, with attendants' room and two emergency rooms in each section or ward. Bath and clothing rooms, closets, etc., are on each floor. The census of the institution is 510.

Dr. A. H. Knapp has presented his resignation as superintendent, to take effect June 30th, 1892.

Massachusetts.—The annual exercises of the Westborough Training School for Nurses, connected with the Westborough Insane Hospital, took place Wednesday evening, November 4th. At this time the first class of seven nurses were graduated, after completing the required two years' course. Both men and women composed the class.

During their course, a few lectures were given, but most of the instruction was derived from text-books. The first year they completed "How to Care for the Insane," by Dr. Granger, and a "Manual of Nursing," prepared for the Bellevue Hospital Training School; and in the senior year the female nurses finished the book of Dr. Worcester entitled "Monthly Nursing." Nearly all received experience out of the hospital in private cases. All of the female nurses have had experience in monthly nursing and a regular three months' course in a surgical hospital, whereby they are fitted not only for caring for the insane, but for surgical and obstetric cases, as well as for the

ordinary diseases as they occur in the community. During the past year all persons entering the hospital to have charge of the insane are called nurses, and are obliged to join the Training School. At first there was some difficulty in changing the former methods, but now the nurses are enthusiastic, and are doing good work, and they are incited to make progress by the openings constantly occurring for nurses in the community at higher wages than could be paid in the hospital. Previous to November, nurses were given whatever they earned in private cases, but since November they have been paid by the Training School the same wages that would be given if in the hospital service, with an addition of one-half of the surplus of the wages paid by the family, the other half going to the Training School for the expense of training nurses in cooking, massage, &c. The wages of nurses remain the same as before the Training School was begun, and of course are about the same rate as other hospitals in the State.

-Extensive improvements have been made in that part of the Worcester Insane Asylum rebuilt after the fire of 1890. A high pressure water main has been extended so that a hose may be readily laid to protect any portion of the buildings. One or two more hydrants will be placed, and stand-pipes will be carried up inside the house. Outside fire-escapes have been added, and inside stairways, so that now no ward has less than two means of communication with the ground.

—Riverview, at Baldwinsville. Mass., has been enlarged during the past summer to a capacity of eighteen patients. A complete equipment for the administration of Turkish. Russian, electrical and other baths has also been added.

Michigan.—The last Legislature authorized Wayne County to care for its pauper insane in an asylum of its own use. As in the case of the State institutions, the cost of their maintenance, after two years' treatment at county expense, is to be assumed by the State. Two years ago a similar bill failed to pass, and at that time a large number of patients were sent to the Eastern Michigan Asylum at Pontiac. The resulting overcrowded condition of that institution has been in a measure relieved during the past summer by returning these patients to the Wayne County Asylum.

This step is to be regretted in view of the attitude which the State has for many years maintained in favor of State care for the insane, but the overcrowded condition of State asylums made the necessity for relief urgent.

—Appropriations were made by the last legislature for a new colony house for male patients at Kalamazoo, a cottage for female patients at Traverse City, and to purchase additional land at Pontiac. The institution at the latter place was also authorized to build an infirmary.

—A training school for attendants has been in successful operation at the Eastern Michigan Asylum since September, 1890. The members have shown a deep interest in the studies pursued, and the improvement in efficiency and ability to care intelligently for patients has been marked. The first class will graduate next March.

—Dr. W. C. Pepper, formerly assistant physician at the Eastern Michigan Asylum at Pontiac, died at his father's home in Jerseyville, Ontario, October 1, 1891.

MINNNESOTA.—All the hospitals are overcrowded, with the prospect of some relief when the buildings now in process of construction at Fergus Falls are completed; that will be some time in 1892. It has been suggested that the buildings lately occupied by the Reform School, now empty, the occupants having been transferred to their new quarters in Red Wing, be furnished and used temporarily for the insane. The subject was considered by the Governor, who decided that the plan was not practicable. The buildings are located in St. Paul, and could be made comfortable for the surplus now accommodated at the Hospital at St. Peter, probably without much expense for repairs; but there may be objections in law.

MISSISSIPPI.—Seventy-nine colored patients have been transferred from the East Mississippi Asylum at Meridian to the Asylum at Jackson. The latter institution has an annex for colored patients, which now accommodates nearly two hundred of their race.

New Jersey.—The resignation of Dr. H. C. Harris, Medical Director of the State Asylum at Morris Plains has been forwarded to the Board of Managers. Dr. Harris states that this step has been necessitated by the appointment of a partisan board by Governor Abbett.

New York.—At the eighth annual meeting of the New York State Medical Association, held in New York city, October 28, 29 and 30, 1891, Dr. Judson B. Andrews was elected President of the Association for the ensuing year. A part of the session was devoted to discussion of the etiology of insanity, which had been arranged by Dr. Andrews as follows:

Heredity and Environment, by Dr. Andrews; Traumatism and Shock, by Dr. Henry M. Hurd; Arrest of Development and Diseases of Infancy, Dr. E. N. Brush; Bodily Diseases and Senility, Dr. P. M. Wise; Syphilis and Intemperance, Dr. G. A. Blumer; Causes of Insanity Peculiar to Women, Dr. W. D. Granger.

—About 1,350 insane still remain under county care. They will be removed to State hospitals as soon as the detached buildings for which an appropriation was made by the last Legislature, are completed. It is thought that extra accommodations for all but about 400 of the insane remaining in the county houses will be available about May 1, 1892.

—The number of patients in the Buffalo State Hospital is larger than ever before reported, there being 613 now in the house. To accommodate them it has been necessary to put up a number of beds in the corridors and extensions. An orchestra of nine pieces has been organized, which furnishes music for the regular dances.

The steward of the hospital, Mr. Levi M. Beam, died on the 12th of Sep-

tember, after a short illness. He had served the institution faithfully since its opening, eleven years ago. His place is filled by Thomas Wilding, who is now acting steward.

The Board of Managers has decided to ask the Legislature for appropriations to erect another building in continuance of the original plan.

The annual report shows that the percentage of recoveries for the year was 25.34; that the whole number of patients under treatment was 904—a creditable showing in view of the number of cases transferred from the county institutions.

-The St. Lawrence State Hospital has made progress in construction, by the enclosure of group number three-a compact group of buildings for the care of 400 women patients, 50 attendants, two physicians with the necessary domestic arrangements, and an associate dining hall for the entire group. The buildings are erected with blue limestone outer walls, brick-lined, and with double sash windows throughout. They are quite solidly connected by closed corridors, so that a casual observer might consider "block" a better designation than "group." There is, however, as much opportunity for segregation, as if the several buildings were entirely separated; and the advantage of warmed connection between the several buildings in a cold climate is sufficiently great to overcome any objection that has yet been raised against it. The chief departure in the present from conventional arrangements of wards, is the separate wings for water-closets, lavatories and bath-rooms. · These are arranged to accommodate three wards each, and are equally convenient to each. They will thus become of sufficient importance to be constantly attended, an advantage that will be obvious to the medical officer who has wrestled with the closet problem and has been defeated. Although this building is constructed with double outer walls, double sash and corresponding solidity in other parts, of the best known building materials, its cost will be only \$550 per capita for the number of persons accommodated, after it is completed ready for furniture; in fact contracts for enclosure of the building have been less than the estimates, which would reduce this amount.

The central hospital group has been organized, and its operative plant as well as the reception cottage for each sex is now in active operation. The observation cottages are ready for furniture and will be occupied in several months. Although the opportunities for classification are still restricted for lack of ward division, this hospital may be considered, in other respects, full-fledged and doing its legitimate work.

—The new cottage of the Binghamton State Hospital, for thirty-five women, at Phelps farm is nearly completed. It will probably be occupied in a few weeks.

The work on new south building is progressing rapidly. It will be ready for occupancy early in May.

All the cottages both at the main plant and at the two farms are now connected with the main office by a telephone system.

—Dr. Frederick Sefton, who, for nearly six years, has been first assistant physician at the New York State Asylum for Insane Criminals, at Auburn, has resigned and will open a private institution for the care of nervous and

mental diseases in that city. He has purchased a very desirable property containing a homestead and twenty acres of land, most eligibly and conveniently located, and has remodeled the residence, and improved the grounds. The new institution, which will be known as "the Pines," will accommodate eight patients of either sex, and is now completely furnished and will be ready for the reception of patients early in the spring.

—The Summary records with sorrow the death of Dr. B. Wible Walker, formerly assistant physician at the Willard State Hospital. Dr. Walker entered the State service at Willard, after a preliminary period of training in the New York city institutions and in the Bloomingdale Asylum. Ambitious for promotion in his chosen specialty, his sunny disposition won him many friends, and his energy and devotion to work placed him among the first of the younger men—and assured him the success he desired to achieve. Failing health necessitated his resignation, and he died at Panama, Central America, of septicæmia, July 10, 1891.

—A new group of buildings, destined to accommodate 200 patients, is in course of erection at Utica as an annex to the male department of the main building, in pursuance of the State Care Act. Ground was broken in August, and the buildings are now all under cover. The group comprises a central building for residential and administrative purposes, about which are symmetrically disposed, and connected by corridors, a congregate dining-room, one and a half stories high, with kitchen adjoining; two infirmaries, two stories high; two spacious day-rooms, and two congregate dormitories, each one story. Single rooms line one side of the connecting corridors. It is expected that this addition will be ready for occupancy next summer, and that the total per capita cost will be a trifle under \$550.00, including separate heating and electric light plants and furniture.

Ohio.—The Legislature will be asked to make appropriations for small workshops for the employment of patients in the Asylum at Cleveland. The question of employment has enlisted the attention of the newly appointed Superintendent, Dr. Eyman, who will make an effort to provide every proper means for the industrial diversion of his patients.

Pennsylvania.—At the State Hospital at Norristown "the utility of the inspectory system has been demonstrated in many ways during the year, and as time passes it becomes more and more engrafted upon the ward life as a necessary safeguard to the comfort and protection of the patients. * * * Necessarily in a large degree, the best results of the system are of a negative rather than a positive character; from the fact that the theory has been practically realized, that its chief element for good lies not in its detection, (however important that may be,) but rather in its prevention features—the mere presence of the inspectors undoubtedly checks, in many instances, sudden impulses, under trials of patience, and constantly restrains the tendencies toward wrong-doing among the subordinates."—Annual Report for 1891.

—The Christmas Circular of the Pennsylvania Training School for Feeble-Minded Children, states: "The annual issue of this circular gives an opportunity to many of our old and new friends to encourage our work through small and timely contributions for the enjoyment of the children, or for special means for their improvement. So generous in recent years have been these contributions that a portion is now annually added to the free fund, which to-day supports sixteen children, all of whom are either fatherless or entire orphans, who without this beneficent provision would be thrown upon mothers struggling to support themselves and their other dependent children, or who might be east into alms-houses, where their helplessness and sensitiveness could be but sadly administered to.

"Poor Joe, who has for many years derived his support from this source, continues with us. Although dependent on the generous boys of Franklin club to be earried from place to place, he never escapes any of the privileges which come to the boys of sound limbs and usual strength; Joe has nevertheless become quite helpful in teaching the younger boys the art of mat making. He is fully conscious of the benefits he receives from our free fund, and is as loyal in returning what little service he can by the industrious use of his crippled hands.

"Within a few days a distressed widow brought to our doors an entirely helpless child seven years old. She had recently lost her husband, and was entirely dependent on the work of her own hands for the support of this little excitable idiot and another and younger child. Her condition was very necessitous, as the care of the former had become so serious as to demand that she should give up her employment in the mill, and she shrank with a proper sensitiveness from becoming a pauper. The free fund took the little 'idiot child and released a grateful mother to return to her loom, and to continue her little home and independent sustenance of her remaining child.

"There are many mothers equally necessitous and deserving for whom provision is being urged. So far as by influence or act you can add to this fund, you will alleviate the condition of those who are infirm through no sin of their own, and who are too often the cross bearers of the sins of the great community. Let us for this and for Christ's own blessed teachings, nurture and help them.

"The holidays are as eagerly anticipated in this hospital home as in any happy home in the land. We never disappoint these hopes. We are glad to be assisted by those who are interested and able."

South Carolina.—The State Asylum at Columbia accommodates about 750 patients—white and colored. The number of insane among the colored people is increasing rapidly, and out of proportion to the whites. The former Superintendent, Dr. Griffin, was removed through no fault of his, by the Governor, May 2.st, 1891. In July Dr. J. W. Babcock was appointed and assumed control August 15, 1891. Dr. Babcock served as assistant to Dr. Cowles at the McLean Asylum for about seven years before his appointment as superintendent. Although there has been a change of superintendents there has been no marked change of policy or management. The only effect upon the asylum of the political upheaval, has been a cutting down of the usual annual appropriation for maintenance, from \$100,000 to \$90,000, and the withholding of an amount asked for to provide better accommodation for the colored

male insane. The evil effect of politics upon such institutions is brought prominently to attention when it is noted that this lack of justice and benevolence can be charged to a member of the Senate (and a medical man,) who has Congressional aspirations. The Training School for nurses will be inaugurated on the 4th of January. Miss Katherine Guion, a graduate of McLean Asylum Training School and also of the Massachusetts General Hospital, will have charge as Superintendent of nurses. A healthy degree of enthusiasm exists, and about twenty nurses will begin the course of instruction. The classes will be open to men and women.

Texas.—The library continues to be a feature of the North Texas Hospital, at Terrell. A librarian is in charge, and reports a gratifying number of contributions from friends of the institution, and from publishing houses. Additions have also been made by appropriations by the legislature.

Reduction of restraint, removal of fences, and precautions against fire are among the recent advances made by the hospital.

VERMONT.—The new Asylum at Waterbury received patients on the 8th of August, and now accommodates two hundred of both sexes. About one-third of the institution, as planned, is at present constructed. The transfer of patients from the asylum at Brattleboro has relieved the latter institution, which, for the first time in half a century, is free from pressure.

VIRGINIA.—The Superintendents in this State make unanimous request for change of title from Lunatic Asylums to Hospitals.

WASHINGTON .- A new wing has been added to the male ward of the Western Washington Hospital for the Insane, at Fort Steilacoom, and is about ready for patients. It is three stories high, built of brick, heated with steam, lighted with electricity, and supplied with hot and cold water. Each floor has twenty-eight rooms for patients, and each room is large enough for two patients. This new wing will take the place of the last of the old wooden buildings which have served so long as hospital wards. They were barracks for soldiers, built in 1857, and have been used for the insane since 1871. They will now be placed on the retired list. Other improvements have also been made since our last report. Two new boilers have been added, the beilerhouse and laundry enlarged, an engine for running the laundry, an additional washer and other laundry machinery added; also a large dynamo, and a new smokestack. The water supply has been largely increased by a steam pump, and tower with tanks at the spring from which the water is obtained. The hospital is also well supplied with fire mains and hydrants, and a well equipped fire department.

Wisconsin.—By act of the legislature, the Asylum at Milwaukee is now entitled the Milwaukee Hospital for the Insane. The services of eight physicians have been secured for consultation, and they are known as the Consulting Board. •

Turkish baths have been found to have a calmative effect upon noisy, excitable cases, notably epileptics, and have been useful in the treatment of recent cases, more particularly those of depressed type.

Fire protection has been augmented by the adoption of electric dooropeners.

CANADA.—A monthly magazine, The Lancaster Argus, is issued by the patients of the Asylum at St. John, N. B.

—Rev. Sister Therese, the Superioress of the Sisters of Providence in charge of the Asylum of St. Jean de Dieu. Longue Pointe, Quebec, died November 22, 1891, aged seventy-one years. Her name was Tetu. She entered orders in 1844, and eleven years later she founded a house in Valparaiso, Chili. In 1857 she visited San Francisco. Later she became Superioress of an asylum in Burlington, Vt. She founded the Longue Pointe Asylum in 1875, and rapidly acquired property valued at \$1,000.000. Her health suffered greatly in consequence of the fire at the asylum in the Spring of 1890, when ninety-four patients lost their lives, and she had been failing ever since.

Europe.—Consul Isaac R. Diller (Reports from the Consuls of the United States, No. 128, May, 1891,) reports the erection of a commodious building for the Lunatic Hospital San Bonifazio, at Florence, Italy, by the generosity of Mr. E. P. Fabbri, an American citizen.

## APPOINTMENTS AND RESIGNATIONS.

- Adams, Chancey, appointed Assistant Physician of the Taunton Lunatic-Hospital, Taunton, Mass.
- Babcock, James W., formerly Assistant Physician at the McLean Asylum, Somerville, Mass., appointed Superintendent of the South Carolina Lunatic Asylum, Columbia, S. C.
- BANCROFT. GEORGE A., resigned as Assistant Physician of the Taunton, Lunatic Hospital, Taunton, Mass.
- Barbour, Philip F., resigned as Second Assistant Physician of the Eastern Kentucky Lunatic Asylum, Lexington, Ky.
- Brown, J. R., resigned as Assistant Physician of the Eastern Hospital for Insane, Knoxville, Tenn.
- COLLIER, ARTHUR M., appointed Assistant Physician at the Binghamton State Hospital, Binghamton, N. Y.
- COURTNEY, J. ELVIN, formerly Third Assistant Physician at the Hudson River State Hospital. Poughkeepsie, N. Y., appointed First Assistant Physician at the State Asylum for Insane Criminals, Auburn, N. Y.
- Currie, Thomas J., appointed Assistant Physician at the Willard State Hospital, Willard, N. Y.
- EYMAN, H. C., formerly Assistant Physician at the State Asylum, Athens, O., appointed Superintendent of the Cleveland Asylum, Cleveland, O.
- FROST, HENRY P., appointed Assistant Physician at the Willard State Hospital, Willard, N. Y.
- Fuller, Daniel H., appointed Assistant Physician at the McLean Asylum, Somerville, Mass.
- GERHARDT, J. Z., resigned Superintendency of the State Lunatic Hospital Harrisburg, Penn.
- Green, Edward M., appointed Second Assistant Physician at the Eastern Kentucky Lunatic Asylum, Lexington, Ky.
- GRIFFIN, P. E., resigned Superintendency of South Carolina Lunatic Asylum, Columbia, S. C.
- GUILLOT, H. C., appointed Assistant Physician at the Eastern Michigan Asylum, Pontiac, Mich.
- Harlow, J. L., resigned as Assistant Physician of the Northern Michigan Asylum, Traverse City, Mich.
- HARRIS, H. C., resigned as Medical Director of the State Asylum for the Insane at Morris Plains, N. J.
- HARRIS, ISHAM G., appointed Fifth Assistant Physician at the Hudson River State Hospital, Poughkeepsie, N. Y.
- Hoonanian, Gregory H., appointed Second Assistant Physician, Male Department, State Hospital for the Insane, Norristown, Penn.
- IVEY, W. P., resigned as Assistant Physician of the North Carolina Stat Hospital, Morganton, N. C.
- James, J. H., resigned as Assistant Physician of the Minnesota Hospital for the Insane, St. Peter, Minn.

- Kellogg, Theodore H., formerly First Assistant Physician at the Hudson River State Hospital, Poughkeepsie, N. Y., appointed Resident Physician, Sandford Hall, Flushing, N. Y.
- KINDRED, J. J., formerly Fourth Assistant Physician at the Hudson River State Hospital, Poughkeepsie, N. Y., appointed First Assistant Physician at the State Hospital for Insane, Harrisburg, Penn.
- KNAPP, A. H., resigned Superintendency of the State Insane Asylum. Osawatomic, Kas.
- LAWRENCE, O. P., appointed Assistant Physician at the Eastern Hospital for Insane, Knoxville, Tenn.
- LOTHROP, HARRIET E., appointed Pathologist at the State Hospital for the Insane, Norristown, Penn.
- McQuade, F. Q., resigned as Second Assistant Physician, Female Department, State Hospital for the Insane, Norristown, Penn.
- Orth, H. L., appointed Superintendent of the State Lunatic Hospital, Harrisburg, Penn.
- Page, Hartstein, appointed Assistant Physician at the Worcester Insane Asylum, Worcester, Mass.
- Parsons, Ralph W., promoted to be Fourth Assistant Physician at the Hudson River State Hospital, Poughkeepsie, N. Y.
- QUIMBY, H. M., formerly Superintendent of the Worcester Insane Asylum, appointed Superintendent of the Worcester Lunatic Hospital, Worcester, Mass.
- Reese, D. Meredith, appointed Assistant Physician at the Sheppard Asylum, Towson, Md.
- ROBINS, WM. L., resigned as Assistant Physician of the Maryland Hospital for the Insane, Catonsville, Md.
- ROCKWELL, M., appointed Assistant Physician at the Northern Michigan Asylum, Traverse City, Mich.
- RODGERS, HARRIS G., resigned as Assistant Physician of the Binghamton State Hospital, Binghamton, N. Y.
- Rodgers, Alice, resigned as Assistant Physician of the Taunton Lunatic Hospital, Taunton, Mass.
- Rohe, George H., appointed Superintendent of the Maryland Hospital for the Insane, Catonsville, Md.
- Rowley, A. S., appointed Assistant Physician at the Northern Michigan Asylum, Traverse City, Mich.
- Russell, Selwyn A., formerly Assistant Physician at the Utica State Hospital, Utica, N. Y., appointed First Assistant Physician at the Iludson River State Hospital, Poughkeepsie, N. Y.
- Savage, T. R., resigned as Assistant Superintendent of the Michigan Asylum, Kalamazoo, Mich.
- Scovel. Ashley, formerly Assistant Physician, New York City Asylum, Ward's Island, appointed First Assistant Physician at the Vermont State Asylum for the Insane, Waterbury, Vt.
- Scribner. Ernest V., promoted to be Superintendent of the Worcester Insane Asylum, Worcester, Mass.

- SHIMES, ADA M., appointed Assistant Physician at the Taunton Lunatic Hospital, Taunton, Mass.
- SIDEBOTHAM, HENRY L., resigned as Second Assistant Physician, Male Department, State Hospital for the Insane, Norristown, Penn.
- Stone, W. A., formerly Assistant Physician at the Northern Michigan Asylum, Traverse City, Mich., appointed Assistant Physician at the Michigan Asylum, Kalamazoo, Mich.
- Tomlinson, H. A, formerly Assistant Physician at the Friends' Asylum, Frankford, Penn., appointed Assistant Physician at the Minnesota Hospital for Insane, St. Peter, Minn.
- Wade, J. Percy, appointed Assistant Physician at the Maryland Hospital for the Insane, Catonsville, Md.
- WARREN, W., formerly Assistant Physician at the Michigan Asylum. Kalamazoo, Mich., appointed Assistant Physician at the new private asylum, Oak Grove, Mich.
- Welsh, Lilian, appointed Second Assistant Physician, Female Department, State Hospital for the Insane, Norristown, Penn.
- Wilsey, O. J., formerly Second Assistant Physician at the Binghamton State Hospital, Binghamton, N. Y., appointed Resident Physician at the Long Island Home, Amityville, N. Y.
- WHITE, FRANK S., appointed Superintendent of the State Lunatic Asylum, Austin, Tex.

# OBITUARY.

## E. T. WILKINS, M. D.

Dr. Edmund Taylor, Wilkins,* who fell a victim to influenza. February 10, 1891, was born in Montgomery County, Tennessee, October 20, 1824, and was the son of Dr. Benjamin and Jane Taylor Wilkins.

He received his collegiate education at that most ancient, with one exception, of American literary institutions, the old William and Mary College, founded in 1692, and located at Williamsburg, the early capital of the Commonwealth of Virginia, and from which he graduated in 1844. After leaving college, the object of this sketch turned his attention to the cultivation of the soil, and was for several years engaged in raising cotton in the States of Mississippi and Louisiana, and afterwards conducted a sugar plantation at New Iberia in the latter State.

Like many another enterprising spirit of that day, he soon became deeply impressed by the glowing accounts and excitement consequent upon the discovery of gold in California, and in March, 1849, took passage on the schooner St. Mary, from New York, for the Pacific Coast, by way of Cape Horn.

After a most tedious voyage, filled with irritating delays and great peril, and extending over a period of nearly a year, the small craft on which he sailed cast anchor in the bay of San Francisco.

Dr. Wilkins made a short stay in San Francisco—then a village of rude huts, constructed of rough boards and canvas, but now a beautiful young city of three hundred thousand population and magnificent prospects—providing himself with the proper tools, provisions, etc., necessary for life and labor as a miner in the far interior mountains, which he reached in the spring of 1850.

His first effort at mining, and it seems his last as well, was in the attempt to turn the Trinity River from its course by means of a dam, constructed of sand-bags. This proved unsuccessful,

^{*}Read by Dr. L. F. Dozier, of the Napa State Asylum, at the meeting of the Association of Medical Superintendents of American Institutions for the Insane at Washington, May, 1891. For portrait see frontispiece.

and having spent the summer, and all his available means, in this fruitless effort to compel the river to "give up its hidden treasure," he abandoned the mines and the occupation of mining forever.

In 1853 he returned to his native State and attended one course of medical lectures at the Memphis Medical College, after which he sold his sugar plantation in Louisiana, and returning to California in 1854, purchased land in Yuba County, near the town of Marysville, and again turned his attention to farming. In 1855, he married Miss Matilda P. Brander, of Virginia, who bore him three children, and died in 1867. He was married a second time, to Miss Camilla Price, of Missouri, in 1877, who also died, in 1889, without issue.

Finding farming unprofitable, Dr. Wilkins concluded to adopt medicine as his life's work, and taking a second course in the Memphis Medical College, graduated and took his degree from that institution in 1861. On receiving his diploma and returning to California, he left his farm and made his residence in Marysville, then the most flourishing inland town of the State, and devoted himself entirely to the study and practice of his profession, and in the course of his reading gave some special attention to the subject of insanity.

The Legislature of 1870, having authorized the Governor to appoint a Commissioner to compile all accessible information as to the construction and management of asylums, and the different modes of treating the insane, Dr. Wilkins was chosen for that important mission, and entered at once upon its execution. He visited some fifty of the principal institutions in the United States and Canada, then crossing the Atlantic, spent the greater portion of two years in travel, and inspected during that time about one hundred asylums in Great Britain and on the continent of Europe. The results of this mission are embodied in his report, made to the Executive Department upon his return to California, which was published in book form, and distributed to the various organizations of public charity, and to many individuals in the different States in the Union, because of the many valuable charts contained in it, giving the plans and specifications of the best asylum buildings then in existence, or being constructed, and other important information gathered by his interviews with the more distinguished alenists of European nations, as well as those of our own country, as to the various methods of treating and managing the insane.

It was but natural, in view of the experiences and observations of his late mission, that Dr. Wilkins should be selected as one of the Commission to locate a site and adopt plans for an additional asylum, provided for by the Legislature of 1872, and in the following year, with his confrères of the board, located the "Napa State Asylum for the Insane."

Being the moving spirit in this matter, his excellent judgment and good taste are alike manifest, for in all the essentials necessary and most desirable for an institution of the kind, it has no superior, if indeed an equal, in the world—beauty of scenery, combining mountain and valley; its accessibility both by rail and water transportation, and convenient proximity to the flourishing town of Napa; salubrity and delightful characteristics of climate; purity and abundance of water supply, furnished from mountain streams, through permanent works and by gravitation entirely; exceptional and almost perfect natural facilities for sewerage and ventilation; while for grace of outline, convenience and solidity of construction and ornate finish, the building itself is a model of mechanical skill and architectural design.

Dr. Wilkins was elected Resident Physician of the Napa Asylum in March, 1876, and had he lived five years longer, would have completed his fifteenth year as its superintendent. Having been so conspicuously and intimately connected with the projection of this institution, the selection of the site, the adoption of plans for building, and all the preliminaries for its completion, it became at once his pride and special pet, and he entered upon the administration of its affairs with a feeling of parental affection. With a zeal and enthusiasm which seemed untiring, he bent his efforts to develop its material resources and add to the rare beauty of its natural surroundings, by embellishing its grounds in calling to his aid the best skill of the landscape gardener. And to-day the grand pile, erected at a cost of a million and a half dollars: with its valuable appurtenances of extensive and permanent water works; of fields for grain; of ample pasturage, made perpetual by a system of irrigation; of extensive orchards and vinevards, and abundant acreage for the growing of vegetables: with its magnificent

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avenue of approach, more than a quarter of a mile in length and one hundred feet in width, bordered by tall trees, flowering shrubs and variegated plants, and flanked on either side by a graveled walk, arched by an unbroken vista of lapping boughs; with its immediate environments of drive-ways, of winding walks, of grassy lawns, of brilliant flower beds, of sheltering arbors and cosy retreats; and all shaded and protected by splendid trees; this magnificent property stands at once an enduring monument to the generous charity of the State of California and the untiring labor and fertile brain of Dr. Edmund T. Wilkins.

As a man, his many good deeds, his noble, manly virtues, his pure and unostentatious life, combined to make him many friends and to endear him to all.

As a citizen, he was broad in his views and full of enterprise, always alive and progressive, and ready to counsel and assist in all that was calculated to advance the material prosperity and moral happiness of the community in which he lived. As a philanthropist, his spmpathies were as broad as humanity, and no sufferer ever applied to him without enlisting them—his charities were only limited by his means, and he was a friend to all men.

In the death of Dr. Wilkins, this Association has lost a loyal member, who though prevented by long distance from taking part in its deliberations and proceedings as often as he otherwise would have done, yet he entered with hearty sympathy and deep interest into the work before it, and for those constituting its membership and engaged in this great specialty, he entertained the highest regard and most kindly feelings. In his death the State in which he lived and labored has lost a valuable citizen and a faithful steward of the great and important trust so long reposed in him. His immediate associates, who alone can correctly estimate the real worth and many virtues of the man, have lost a genial, courteous and kind friend; while to the thousands of helpless ones who have been committed to his care, he was as devoted as a kind father to his helpless children.

## ANDREW McFARLAND, M. D.

Dr. Andrew McFarland, of the Oak Lawn Retreat, near Oakland, Illinois, died in November, 1891, at the age of seventy-four. Dr. McFarland was born at Concord, N. H., in 1817. He was educated at Dartmouth College and at the Jefferson Medical College. He was Superintendent of the New Hampshire Asylum for the Insane from 1845 to 1854, and of the Central Hospital for the Insane at Jacksonville, Illinois, from 1854 to 1870, from which institution he resigned to establish the Retreat. He is said to have introduced, and always strongly advocated, the cottage system of hospital care for the insane.

## T. S. ARMSTRONG, M. D.

It is our melancholy duty to record the death of Dr. G. S. Armstrong, Superintendent of the Binghamton State Hospital, Binghamton, N. Y., which occurred suddenly December 27, 1891, after a very short illness.

Dr. Armstrong was born May 11, 1825, in the town of Guilderland, Albany County, N. Y. His early life was passed in what were then the wilds of Tioga County, assisting his father in clearing land; and, later, in teaching school. He graduated from the Geneva Medical College in 1847. He pursued private practice for upwards of twenty years, during which time he was for six years president of the Board of Education of Owego, N. Y., and also held the office of coroner for several years. He had charge of the County Insane of Tioga County for thirteen years.

In 1880, he was appointed a trustee of the Binghamton Asylum for the Chronic Insane; and, shortly thereafter, was given charge of that institution, assuming the duties of superintendent in April, 1881.

The Binghamton Asylum had hitherto been the State Inebriate Asylum, and received its first patient as an insane asylum in October, 1881. At the time of Dr. Armstrong's death it had eleven hundred and forty patients.

Dr. Armstrong was a genial, large-hearted man, with a large circle of friends and acquaintances, who deeply deplore his untimely taking off. During the eleven years that he has directed the affairs of the Binghamton State Hospital he has displayed marked capacity for administration and untiring zeal in the discharge of an important public trust. Those qualities of heart that endeared him to his associates and employés were kept in due subordination to his judgment and sense of duty, and fitted him well for the philanthropic work of asylum life. He died suddenly, practically "in the harness," of what appears to have been a cardiac neuralgia. He is survived by a widow, two sons and two daughters. Dr. J. F. Fitzgerald, assistant physician at the State Hospital, is his son-in-law.

## OFFICIAL NOTICES.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunacy held at the Capitol, in the City of Albany, on the seventeenth day of September, 1891.

Present—Carlos F. MacDonald, M. D., President, Goodwin Brown, Henry A. Reeves,

In the matter of providing a uniform system of financial books and accounts for the use of State Hospitals.

It having appeared from an examination of the financial books and accounts of the State Hospitals and from the statements of the financial officers of said institutions, that great diversity existed in the methods of keeping such accounts; and

It having appeared to the Commission after due consideration and after consultation with the State Comptroller, and upon his advice and approval that it would be desirable to unify said books and accounts to the end that intelligent investigation and comparison of said accounts of said Hospitals might be made; and

The Commission having been desirous of giveng all proper parties an opportunity of being heard before taking action, and it having called a meeting of the Medical Superintendents and the financial officers of said institutions at the Capitol, in the City of Albany, for the purpose of giving said officers an opportunity of being heard and of proposing a uniform system of books and accounts, and said officers having been unable to agree and having referred the matter back to the Commission by resolution requesting it to prepare said forms and accounts; and

The Commission having examined existing methods and having sought the advice of State Hospital officials and of the State Comptroller, and having prepared forms of books and records which have received the approval of that official, it is hereby

### ORDERED:

1. That the following forms of books and blanks for financial accounts in the State Hospitals for the Insane be and the same are hereby adopted, to take effect October 1st, 1891, unless otherwise ordered:

No.		Size of page.
1.	Admission and Discharge Record for use of Steward	16 x 21
2.	Patients' Board Journal	12 x 19
3.	County Account	10 x 28
4.	Invoice Book, (usual form)	$9\frac{1}{2} \times 15\frac{1}{2}$
5.	Voucher Journal	16 x 21

No.	Supply Ledger	Size of page.
6.		
7.	(a.) General Fund Voucher. (To be accompanied by Treas-	9½ x 10½
je.	urer's receipt to correspond)	9½ X 10½
7.	(b.) Special Fund Voucher. (To be printed in red and to be	
	accompained by architect's certificate and treasurer's	
0	receipt printed also in red)	
8.	Classification of Accounts	16 x 21
9.	Journal. (Usual form.)	
10.	Cash Cook. (Usual form.)	
11.	Ledger. (Usual form.)	
12.	Trial Balance of Ledger	
13.	Officers' Pay-roll	
14.	Pay-roll, Permanent Employes	
15.	Pay-roll, Temporary Employes	
16.	Treasurer's Monthly Report to Auditing Committee	10 x 14
17.	Treasurer's Quarterly Statement to the Board of Managers	
	and Comptroller	
18.	Treasurer's Annual Statement to the Board of Managers and	
	Comptroller	. 10 x 28
19.	Monthly Statement Book. (Ruled same as No. 16.)	
20.	Quarterly Statement Book. (Ruled same as No. 17.)	
21.	Annual Statement Book. (Ruled same as No. 18.)	
22.	Matron's Requisition Book	$12\frac{1}{2} \times 21$
23.	Supervisor's Requisition Book	$12\frac{1}{2} \times 21$
24.	Head Farmer's Journal	$12\frac{1}{2} \times 21$
25.	Steward's Day Book	
26.	Contract Book for Copies of Contracts Let by Managers.	
27.	Report Book for Sub-Committees of Board for Managers.	
	(Usual form.)	
28.	Minute Book for Board of Managers. (Usual form.)	
29.	Office Report to State Commission in Lunacy. (Quarterly.).	9½ x 12
30.	Office Report to State Commission in Lunacy. (Annual.)	
31.	Abstract of Vouchers. (To accompany Treasurer's Quarter	
	ly Report to Comptroller)	
32.	Single Entry Ledger for Private Patients. (Usual form.)	2
	(	

A circular letter explanatory of the above forms and sample sheets of the same with the exceptions of Nos. 4, 9, 10, 11, 26, 27 and 28, which are the usual forms of these records, and of Nos. 19, 20 and 21, which are sufficiently described above, will be furnished upon application to the Commission.

2. The preliminary order heretofore made and entered on the 10th of Septemder, 1891, in the matter of unifying the financial accounts of the State Hospitals is hereby revoked.

By the Commission:

[L. S.]

T. E. McGarr, Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunaey, held at the Capitol, in the City of Albany, on the eighteenth day of November, 1891.

Present—Carlos F. MacDonald, M. D., President, Goodwin Brown,
Henry A. Reeves.

In the Matter of the Admission of Voluntary Patients into Licensed Institutions for the Care, Custody or Treatment of the Insane, especially permitted to receive them as well as committed patients.

#### ORDERED:

1. That upon the admission of a Voluntary Patient to a licensed institution for the care, custody or treatment of the insane, permitted to receive voluntary as well as committed patients, a report be forwarded upon a printed blank,  $8 \times 10\frac{1}{2}$  inches in size, in manner and form following, within ten days of the date of such admission:

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

NOTIFICATION OF ADMISSION OF VOLUNTARY PATIENT. [Here insert title of Institution.] To the State Commission in Lunacy: Pursuant to direction, I hereby notify you of the admission as a voluntary patient into the above named institution of...... Date of Admission, ..... Residence,.... Age,..... Nativity, ..... Occupation, ..... Education, ..... Civil Condition,..... Form of Disease, ..... Rate per week,..... Name and address of nearest relative or friend ..... Physician in Charge.

2. This order shall be in effect on and after December 1st, 1891.

T. E. McGarr, Secretary.

By the Commission: (L. S.)

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunacy, held at the Capitol, in the City of Albany, on the eighteenth day of November, 1891.

Present-Carlos F. MacDonald, M. D., President, GOODWIN BROWN, HENRY A. REEVES.

In the Matter of the Admission of Voluntary Patients into Licensed Institutions for the Care. Custody or Treatment of the Insane, especially permitted to receive them, as well as committed patients.

#### ORDERED:

1. That no voluntary patient shall be admitted into a licensed institution for the care, custody or treatment of the insane, permitted to receive voluntary as well as committed patients, except an application is made therefor in the following form, and all such institutions are required to prepare and furnish blanks for such applications:

> STATE OF NEW YORK-STATE COMMISSION IN LUNACY. (Name of Institution.)

Application for Admission of Voluntary Patient.

I,..... hereby request the Physician in Charge of the above named Institution to admit me as a voluntary patient. I hereby pledge myself to submit to the regulations thereof, to carry out, or aid in carrying out, all the directions which may be given for my treatment, and that my conduct will not be prejudicial to the good order and discipline of the Institution.

I do hereby declare that I am aware that the above named institution is licensed by the State Commission in Lunacy to care for and hold in custody insane patients; that the physician in charge has fully explained to me the character of the institution, and that I am at liberty to depart therefrom at my pleasure.

I hereby consent that the members of the State Commission in Lunacy may freely visit my apartments on any proper occasion, make such inquiries of me as they may deem necessary, and that I will make truthful answers thereto.

In witness when	reof I have hereunto	set my hand this	day of
189	, in the	., of count	y of
and State of New	York.		

(Signature of Applicant.) We,...., a resident of...., County of..... State of New York, and....., a resident of....., County of ....., and State aforesaid, do severally certify and each for himself certifies as follows:

I am personally acquainted with the above named applicant for admission to the above named institution, and am not a committee of the person and estate nor a relative or guardian of said applicant, nor connected with said institution; I have read the foregoing application; I believe the statements therein made by the applicant to be true, and in my opinion the applicant is capable of forming a rational judgment as to the disposition of h person, and is capable of resisting undue influence.

......Witness.

2. This order shall be in effect on and after December 1, 1891. By the Commission:

[L. S.]

T. E. McGarr. Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunaey, held at the Capitol, in the City of Albany, on the eighteenth day of November, 1891.

Present—Carlos F. MacDonald, M. D., President, Goodwin Brown, Henry A. Reeves,

- Commissioners.

In the Matter of the Employment of Physicians in Licensed Institutions for the Care, Custody or Treatment of the Insane, and the Admission of Voluntary Patients in those Institutions permitted to receive them as well as committed patients.

#### ORDERED:

1. That no license will hereafter be granted to operate and maintain an institution for the care, custody or treatment of the insane, unless such institution shall be constantly in charge of a well-educated resident physician (to be designated "Physician in Charge,") who shall possess the following qualifications:

He must be a graduate of a legally incorporated medical college and must have had at least five years' actual service as a physician in an institution for the care and treatment of the insane. In existing institutions this order will in all future appointments be held to apply.

2. That hereafter the approval of the Commission in writing will be required upon the appointment of all assistant physicians in licensed institutions for the care, custody or treatment of the insane. In existing institutions this order will in all future appointments be held to apply.

3. That no voluntary patient shall be admitted to a licensed institution for the care, custody or treatment of the insane permitted to receive voluntary as well as committed patients whose mind is so impaired as to render him incapable of forming a rational judgment as to the disposition of his person or whose will is so weak as to render him incapable of resisting undue

influence, nor unless an application for admission is made in the form prescribed by the Commission, by order dated November 18, 1891. A copy of the application, certified by the physician in charge, must accompany the report to the Commission of the admission of the patient.

By the Commission:

[L. S.]

T. E. McGARR, Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

At a Special Session of the State Commission in Lunacy, held at the Capitol, in the City of Albany, on the eighteenth day of November, 1891.

Present—Carlos F. MacDonald, M. D., President, Goodwin Brown, Henry A. Reeves.

Commissioners.

In the Matter of the Admission of Patients to Institutions for the Care, Custody or Treatment of the Insane.

#### ORDERED:

- 1. That all persons committed to any institution for the care, custody or treatment of the insane must, at the time of admission, be informed by the receiving medical officer of the character of the institution and the cause of detention.
  - 2. This order shall take effect December 1st, 1891. By the Commission:

[L. S.]

T. E. McGARR, Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

STATE OF NEW YORK
ATTORNEY GENERAL'S OFFICE.
ALBANY, October 16, 1891.

State Commission in Lunacy:

Your communication of the 12th instant has been received asking for my opinion upon the following question;

"What jurisdiction, if any, has the State Commission in Lunacy over homes, sanitariums or retreats in which are treated persons of unsound mind, other than those formally committed under the provisions of the statute as insane persons needing care and treatment in an institution for the care and treatment of the insane?"

It appears that there are numerous institutions in the State claimed by the proprietors to be institutions for the cure and treatment of persons suffering from opium habit, the alcohol habit, insomnia and various other forms of physical and mental disturbance, cases which, unquestionably, (although it is difficult to obtain proof in regard to the same,) are those which require

occasional and more or less long-continued restraint: and the question relates particularly to these institutions.

Section 12 of chapter 273 of the laws of 1890 prohibits a person or association from establishing or keeping an institution for the care, custody or treatment of the insane or persons of unsound mind for compensation or hire, without first obtaining a license therefor from the State Commission in Lunacy.

Section 1 of chapter 446 of the laws of 1874 prohibits the commitment to or confinement as a patient in any institution, home or retreat for the care and treatment of the insane except upon the certificate of two physicians under oath, setting forth the insanity of the person, and approved by the county judge or a judge of a court of record.

Section 13 of chapter 273 of the laws of 1890 provides that the State Commission in Lunacy may make an investigation in all cases where they have reason to believe that any person is wrongfully deprived of his liberty in any asylum or institution for the custody of the insane.

The terms "the insane," or "persons of unsound mind," as used in these statutes are, I think, practically synonymous.

Insanity is a question of fact and not of law; and whether a person is insane within the meaning of the term when used in these laws must depend upon the proofs.

"Persons suffering from the opium habit, the alcohol habit, insomnia and various other forms of physical and mental disturbance" are not necessarily insane as the term is here used.

Nor do I think that persons suffering from the temporary delirium of a fever, or an attack of hysteria would be regarded as insane under these statutes; although while the delirium or the attack lasted they might necessarily be subjected to physical restraint.

If, however, there is any institution in which any person actually insane within the legal signification of the term is confined or is under care or treatment, that institution would seem to be subject to the visitation of the State Commission in Lunacy whether the person had been sent there upon the certificate of two physicians approved by the judge or without such certificate.

Any such institution which keeps such an insane person without having a license from the State Commission in Lunacy would be violating the provisions of section 12 of chapter 273 of the laws of 1890.

Any such insane person kept at any such institution which is not licensed "is wrongfully deprived of his liberby;" and the State Commission may order an investigation under section 13.

Any such insane person who is kept at any such institution whether licensed or unlicensed without the certificate of the physicians and the approval of the judge required by chapter 446 of the laws of 1874, is also "wrongfully deprived of his liberty;" and the State Commission may investigate in such cases as provided in section 13 of the act of 1890.

Very respectfully, etc., CHAS, F. TABOR, Attorney-General.

### STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

ALBANY, December 5, 1891.

Hon. John Wanamaker, Postmaster General, Washington, D. C.

DEAR SIR-I forward herewith for your inspection an order recently issued by the State Commission in Lunacy regulating the matter of correspondence of the insane in the institutions of the State of New York. The Commission directs me to inquire as to what extent letters addressed to the insane in asylums may be scrutinized by the medical officer in charge of such inmates before delivery, to the end that their mental condition may not be injuriously affected by injudicious statements contained in letters of friends and relatives. The Commission desires to be informed whether there has ever been any United States statute or regulation of the Post Office Department upon this particular point, and, if not, whether the superintendents of asylums are justified, not only in examining letters addressed to their charges, but also in cases where it would be manifestly injurious for the patients to receive such letters, in withholding them until such time as recovery takes place. Cases have come under the observation of the Commission where narcotic drugs have been enclosed in letters to patients; where plans for the escape of dangerous lunatics have been suggested in said letters, etc., etc. Business and professional men, who by reason of overwork and anxiety have fallen victims to insanity necessitating their confinement in asylums, should certainly in the opinion of the Commission, be spared the infliction of letters written by thoughtless correspondents pertaining to business complications or domestic misfortunes.

In case no regulation has been made by the department, the Commission would be under many obligations for advice with regard to this matter.

I am, very respectfully yours,

T. E. McGARR, Secretary.

## Post Office Department, Office of the

FIRST ASSISTANT POSTMASTER GENERAL, WASHINGTON, D. C.

SIR—The Postmaster General has handed me your letter of December 5th, submitting an order issued by the State Commission in Lunacy regulating the matter of correspondence of the insane in the institutions of the State of New York.

You have been directed by the Commission to inquire whether there has ever been any United States statute upon the question of delivery of mail addressed to the insane; and whether Superintendents of Asylums are justified, not only in examining letters addressed to their charges, but also in cases where it would be manifestly injurious for the patients to receive such letters, to withhold them until such time as recovery takes place.

Answering your inquiry, I beg to inform you that there is no United States statute expressly applying to the delivery of mail addressed to the insane.

The Statute forbidding unauthorized persons to open letters addressed to others, is as follows:

"Any person who shall take any letter, postal card, or packet, although it

does not contain any article of value or evidence thereof, out of a post office or branch post office, or from a letter or mail carrier, or which has been in any post office or branch post office, or in the custody of any letter or mail carrier before it has been delivered to the person to whom it was directed, with a design to obstruct the correspondence, or to pry into the business or secrets of another, or shall secrete, embezzle, or destroy the same, shall, for every such offense, be punishable by a fine of not more than five hundred dollars, or be imprisoned at hard labor for not more than one year, or by both," (R. S., 3892.)

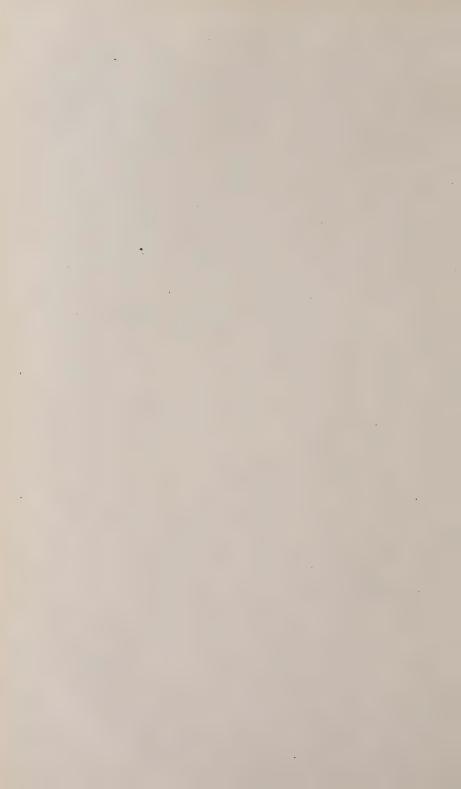
It is the intention and desire of the Post Office Department to impress upon every one the importance of preserving the absolute sanctity of the seal, hence, I am inclined to think that the question of *legality* of the acts of your Superintendents in opening and withholding letters addressed to the insane patients, placed by due legal process, in their charge, is one for the consideration of your Counsel. The jurisdiction of the Department ceases when the letter is delivered in accordance with its address, order of the addressee, or to his legal guardian; the question of delivery is the only one that can properly come before this office.

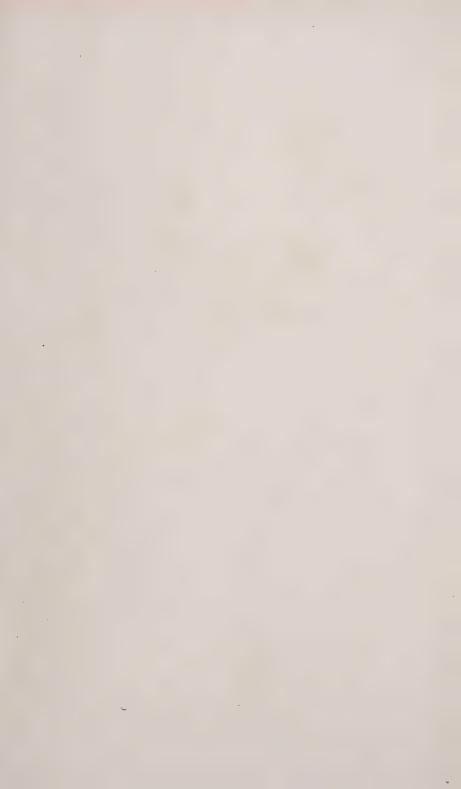
Very respectfully,
S. A. Whitfield,
First Assistant Postmaster General.

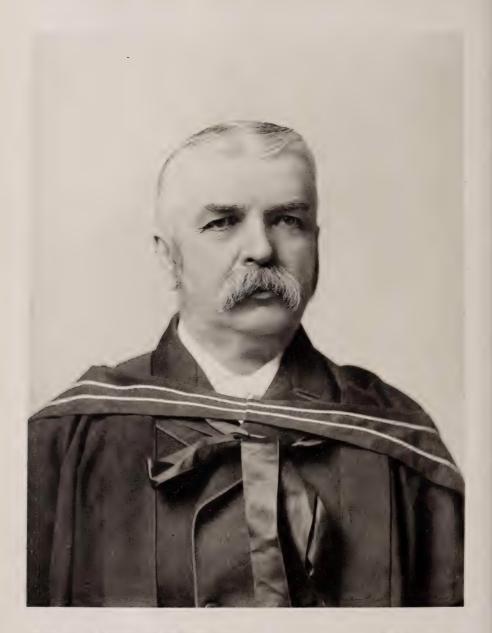
Hon. T. E. McGarr,

Secretary State Commission in Lunacy,

Albany, N. Y.







American Journal of Insanity, Utica, N. Y., April, 1892.

N. Y. Photogravure Cc.

Jan Land

## AMERICAN

## JOURNAL OF INSANITY.

APRIL, 1892.

# THE DREAM STATE AND ITS PSYCHIC CORRELATIVES.

BY HENRY SMITH WILLIAMS, M. D.,
Medical Superintendent, Randall's Island Hospitals, New York City.

At first sight the state of sleep might be regarded as a purely negative condition, and hence as having no place in a psychological discussion. But when one considers the dream state it is at once evident that this rounds out and completes an otherwise inadequate conception of the mental entity. We are certainly not non-existent during sleep, and hence we must feel that the mind is present, however profoundly in repose. We shall, therefore, consider the psychical bearings of sleep and the dream state with reference to our previous studies of normal mentality, and also in regard to their bearings on abnormal conditions of the mind.

In previous papers I have formulated my ideas as to conditions (not nature) of consciousness, and of sleep. I there regarded consciousness as present when the energy involved in the cerebral metamorphoses reaches a certain level of intensity, and sleep or unconsciousness as the obverse condition pertaining when the energy falls below this level of intensity. This cerebral energizing I have supposed to vary indefinitely between the maximum of intense thought and the minimum of profoundest sleep. The transition from the one extreme to the other is normally always more or less gradual. Evidently whether gradual or sudden it must touch upon all intermediate stages. A person engaged in profound thought cannot instantly fall asleep. His consciousness must come to represent a less and less intense degree of energizing. Finally a stage is reached in which volitional guidance is no longer present, and in which many

associative vibrations are no longer conscious, the mind seeming to wander in a vague, visionary way. A slight further reduction and the ego fails to consciously register new impressions sent through the senses. Technically this is the criterion of sleep.

But the cerebral energizing is still sufficient to produce changes that may possibly register themselves sufficiently to be recalled. This is the dream state. Some persons sleep poorly, and seldom sink much below this state, and in some abnormal conditions this comes to be a permanent condition for days or weeks. But the strictly normal brain sinks to still lower levels of energizing, until its vibrations are so feeble that they will never be consciously recalled. This is the condition of profound abnormal sleep.

Manifestly the reverse transition—from profound sleep to active waking—must travel backward over the same path, also passing through a dream state. It is the vibrations of this latter dream state that are usually recalled, for the reason that they are still active at the moment of waking, while the vibrations of the other dream state have ordinarily then been for some hours subsiding. That the vibrations of what might be termed the descending dream state are seldom recalled does not seem strange when we reflect that even the morning dream usually vanishes forever from memory unless actively reënacted soon after awakening.

Thus much premised, we are prepared for a more specific consideration of dreams and dreaming. This discussion is important here because the psychical phenomena of dreams, subjectively considered, afford the best clue we can obtain to a certain class of delusions of the insane. During a vivid dream, the subject is as completely the victim of delusions as is the wildest maniac. The experiences of such a dream seem to flash along like a lightning streak of concentrated consciousness in a midnight sky of mental oblivion. Seldom can the most disciplined thinker attain during waking hours the degree of seeming unity of thought which comes in dreams to the most undisciplined and the most disciplined alike. The dream seems to be a single, direct line of thought—a train of thought of one dimension as it were; while every waking act of mind sweeps a wide, devious channel—at narrowest a channel of three dimensions.

But how is this consistent with the idea of the unity of mind?

Is this a different mind which operates during sleep, following different laws? Our belief in the somatic origin of mind banishes such a thought as that. Surely the brain and its fibres have not fundamentally changed during sleep; surely, then, the nature of its energizing cannot have changed. On the contrary, I believe that in dreams the mind follows precisely the same laws and lines of action as during waking hours. That the results seem different from those of the waking mind, as viewed in retrospect, is, in my opinion, because the reproduction is not accurate. There seem in the dream to be associations which the waking ego pronounces absurd or impossible, vet the dreaming ego accepted them unchallenged. The explanation of this seeming anomaly is this: The remembered dream results from the reproduction of the line of vibrations which was most intense during the period of dreaming. The associations of ideas are the same as during waking hours. But in the dream the constantly wavering minor vibrations-which carry the mind hither and thither, introducing new subjects and constantly shifting from the one in hand—are so feeble that they are not reproduced by the waking mind, and hence are altogether lost. That they occurred, no one who believes in the unity of mind can doubt; but waking consciousness cannot recall them. So in the recollection of the dream, the most grotesque changes and transformations occur with seemingly no connecting link. Thus a dream which started with a man for its subject may have the man transformed into a bird and the bird into a horse, while the ego feels no surprise at the transformation. The line of thought changed by natural gradations from man to bird and horse just as it might during waking hours, but the connecting links were so feeble that they did not arise into the subconsciousness of the dreamer; hence the record in memory is of a single object which, changing from man to bird and horse, still retained the original personality. The fact that even the most intense portions of the dream will soon be eliminated from memory unless vividly recalled and repeated soon after awakening, lends color to this theory; which, furthermore, is the only one I have been able to find that accords with our knowledge of mind and its action.

That the associative processes are so weak as they are here supposed to be is in part, no doubt, because the general blood

supply to the brain during sleep is very limited. Even the most intense line of vibrations (that which makes its record in the dream proper), is feeble in comparison to that which pertains during ordinary waking consciousness. True it may seem intense, but in proof of its actual weakness, witness the inefficiency of attempts to cry out, to strike, run, etc. Abnormal somnambulistic conditions, in which there is actual intensity in circumscribed areas of vibration, will be considered later.

In this view, it will be seen, the dream is not really a concentrated line of thought. It would be strange indeed if during sleeping hours the ego attained a greater degree of concentration of thought than it could attain while awake. But the view just advanced does away with this absurd supposition, and correlates the mental condition during sleep with the condition of the waking ego.

I have just spoken of the dream state as a perfectly normal condition of the organism. But I would not be understood as maintaining that a prolonged period of dreaming is necessary or desirable. I believe it to be impossible for the brain to pass from the condition of waking to that of sleep without passing through the field of the dream state. But its transition through this realm may be so rapid as scarcely to leave time for a record of cerebral action; and I believe that the most normal awakening is that in which the transition is so rapid that it is seldom appreciated by sub-consciousness sufficiently to be recalled. True it has been often demonstrated that dreams may take place in very short periods of time, but I believe that observation will convince anyone that it is not unusual for sleepers to experience dreams that extend over relatively long periods. And I believe further that it is the rule with persons who sleep poorly to dream during periods that occupy an appreciable ratio to the entire period of sleeping. Any one who will watch a restless sleeper will soon be convinced that the degree of mental reduction during sleep fluctuates greatly. Now the sleeper lies with every muscle relaxed; now he starts and turns uneasily; and now his lips utter half articulate sounds. No one can doubt that the blood currents and the nervous currents are fluctuating in that sleeper's brain. And it is the natural inference (though not usually, if ever, susceptible of demonstration,) that such a

sleeper is, during the restless intervals, dreaming. But such a sleeper is not sleeping in the most normal way. His brain is receiving disturbing messages, perhaps from the digestive tract or from a cramped limb, and its currents are not equally distributed. The undisturbed brain in repose, though of course never absolutely free from afferent impulses, yet receives, we may suppose, none in such preponderance as to disturb its equability. And it seems natural to suppose that the most normal way of awakening would be that in which the blood suffuses the brain equably, accentuating the nervous currents so evenly that a general and vague sub-consciousness should precede waking, rather than the unbalanced consciousness which we know as a dream. This supposition finds the strongest possible warrant in the fact that for a moment after awakening from natural sleep the mind entertains only the most vague and indefinite concepts. It is usually impossible for any one to say what was his very first thought on awakening from a peaceful and "dreamless" sleep.

It will be seen, therefore, that while I regard the dream state as a strictly normal and indeed unavoidable condition of mind, I nevertheless regard a vivid dream as an abnormal mental phenomenon. In other words, I believe that the unavoidable dream state is normally so nearly a condition of equability of brain currents that the one preëminent current will be so slightly accentuated as to rise into consciousness only in the most vague and indefinite way, and not with such force as to be ever recalled by the waking ego. In this view the normal dream is the exact counterpart of that vague form of waking reverie which often precedes sleep, in which the mind is vaguely conscious of a sense of well being, and in which the ideas are so indefinite that the "day-dreamer" could not, if questioned, tell of what he was thinking. Indeed, he could scarcely be said to be thinking at all, since his thoughts are not susceptible of reproduction. And so-paradoxical as it seems—the normal dreamer can scarcely be said to dream at all, since his dream can never be reproduced. In the waking reverie, the aggregate brain currents are above the level at which consciousness appears; in the dream state they are below his level; in each case the particular current momentarily preëminent is but slightly above the level of its fellows. But however slight the

difference, it is difficult to believe that there can ever come a time in which the currents are absolutely equable, since we know nothing of absolute equality anywhere. Hence we must believe that, in the widest view, all sleep is a dream state. And this is a perfectly consistent and tenable belief. It is true that profound sleep is commonly, and under ordinary circumstances properly, spoken of as dreamless; but this merely means that it produces no mental state that can be recalled. Of the multitudes of vibrations that must be going on in the brain during the profoundest sleep, one set of vibrations must at any given moment be the most intense, and we have every warrant of analogy for supposing that a mental state accompanies this most intense vibration—a mental state that has received no name because it does not enter into experience, (except theoretically,) but which is the exact counterpart of the rememberable dream and of the conscious ego.

We have seen that the dream is strictly comparable to a train of thought of the waking ego, each being the psychic equivalent of a preëminent set of vibrations in the brain. Now it seems highly probable that the amount of energy represented by this set of vibrations is, in either case, very small as compared with the remaining aggregate of cerebral vibrations. In proof of this, witness the great number of more or less vague concepts that form a background to every definite concept of the waking ego. For example, we are always conscious of time, space, place, our own personality, etc. But in the dream this background is always very much restricted, and it is precisely this restriction which constitutes the essential difference between the dream state and the wakening condition. Suppose a person to awaken from a sleep in which he has experienced a vivid and frightful dream. He may at once recall the dream in all its details, but it is a very different thing indeed as thus recalled from what it was when first experienced; for it is correlated with a host of other experiences and made to take its true place in the mental organism. That this did not occur during sleep was because the tissues related to the ones that vibrated to produce the dream were relative, quiescent and non-receptive, only becoming, as it were, awakened when the vibrations underlying the dream became very intense. Had these associated tracts failed to become receptive when the dream became intense, the

organism would have passed into a condition of somnambulism. This is an abnormal state in which the cerebral currents are so ill-coördinated that one restricted set of vibrations is very intense while the average intensity of vibration does not rise to the level of consciousness. The same thing occurs during certain other abnormal states, such as hypnotism, and during epileptic seizures. A corresponding state of affairs comes to pass during some not altogether abnormal emotional states. For example, intense fear, with desire to flee from the fearful object. or great anger, may render a person partially unconscious of everything but the one object. And usually, after subsidence of such an emotion, its subject is never able to accurately recall the occurrences that transpired under its influence.

One may explain all these conditions of defective coördination by supposing that there occurs a spasm of the arteries of the greater part of the brain, such as usually occurs during sleep, but at the same time a relaxation of a certain set of arterioles. In other words we may reasonably suppose that these conditions are due to an abnormal extension of that inter-arterial fluctuation which we have all along predicated as an essential cerebral process; once more proving the abnormal to be only a perversion of the normal.

But since such action of the arterioles is essential to concentrated mental operation, would it not appear that the brain of the hypnotic subject or the somnambulist is the most highly developed brain? At first sight, perhaps, but not on closer analysis. In the first place, it is almost axiomatic that extremes of functioning are abnormal, since normality is simply a term to express the average condition. But again it appears that the power to fix the attention vividly on concrete objects appeared early in mental evolution. Indeed, we may go further and say that the tendency to fix attention long on single concrete objects is an atavistic tendency that appears often in conditions of mental reduction.

Practical experience is corroborative. Susceptibility to the hypnotic influence, for example, is an attribute of low, not of high minds. Every experimenter knows that birds are good subjects, and that it is not the highest orders of birds that are most susceptible. It would even appear that not only the less intellectual species but the more feeble-minded individuals of

these species are the most susceptible. This is demonstrable a priori, since the hypnotic state plainly does not usually subserve a useful end in the struggle for existence. The rabbit who cannot gaze into the eye of the cobra and still retain wide enough sweep of mind to realize that safety lies in flight, is a weakling who ought not to propagate his species; and forthwith nature removes him with the aid of that very infirmity the existence of which makes him an undesirable member of her company.

If it be argued in objection to this that the orator and the poet when in a condition of mental productiveness are in a sense hypnotized, I answer that there is a radical difference in that their minds, though oblivious to many impressions, yet sweep a very wide plain of thought, with always sufficient perspective to make their own personality perfectly self-recognized. It is true, however, that in bursts of enthusiasm incident to such composition the mind may come to points of view different from those attained during calmer times, and in so far as this occurs, the tendency is an abnormal one, allied to the more commonly recognized forms of hypnosis. With hypnotism per se we have nothing to do here, but only with the hypnotic state in its salient relations to the dream state. We have seen that the hypnotic state is only a slight extension of that maladjustment of functions which takes place in every vivid dream. Such being the case, it scarcely needs to be said that hypnotism, in this view, implies no transfer of occult or other "principles," except ordinary impressions sent through ordinary channels. The recipient of these ordinary impressions, under certain circumstances, passes into the abnormal subjective condition of hypnosis.

Closely allied to the dream state also is the condition of certain delusional insanities. Those cases of melancholia in which the patient is completely dominated by painful delusions, place their victim, I believe, in a condition very little removed from that of the dreamer. Such a patient is usually anemic and cachectic, and there is insufficient blood to furnish his brain with the stimulus to active vibration. Often he does not truly sleep for weeks, but his constant condition is one little removed above the level of sleep. He has scarcely a truer appreciation of his condition than has the dreamer, and the creations of his

fancy, however grotesque, seem as real as the vagaries of a dream. In the one case as in the other the line of vibrations is not sufficiently intense to give the ego'a comprehensive view of the environment. So small objective realities assume proportions quite aside from their ordinary relative importance. And as the dream may be suggested by some objective appearance which it does not at all resemble, so the delusional mind may invent a train of grotesque conceptions, starting from some insignificant object in its environment, and, failing to note the connecting links, retain the same personality for the entire line of concepts; just as in the dream we saw bird change to horse, and horse to man, or the reverse, unbeknown to the ego. By such a transition, an insane person may develop illusions out of perceptions that in themselves were not perverted.

These concepts, too, may arise to singularly irrational proportions in the deluded mind. The concept will be seemingly powerful just in proportion to the singleness of its presentation to consciousness. While the mind sweeps a wide field of thought, it correlates the observed phenomena of its environment and gives them something like their true proportion in the mental vision. But when the mental field becomes restricted to a single object, all true perspective is eliminated by the absence of comparison. Were it possible for the mind to fix attention absolutely on one object, expelling all associative currents, that object would become an isolated existence, only differentiated as being non-ego; and it would make up the entire objective universe for that particular mind. All comparisons being by hypothesis eliminated, the object would become absolute. Meanwhile the subjective universe—the ego—robbed of all its associative paraphernalia, and limited to the single percept, would dwindle to insignificance almost infinitesimal, not even amounting to real self-appreciation—since that implies a wide range of thought. Conversely the objective universe—which may be in reality a pin-point—becomes an infinitely large and infinitely powerful universe.

Such would be the result were a truly concentrated loneness of thinking possible. But, of course, normally such concentrated action of the mind could not be maintained. Associative currents would presently correlate the concept "pin-point" with other concepts and comparison would act as a magic wand

dethroning an infinite universe, "pin-point," and leaving an insignificant finite object. But in the case of the dreamer and of the delusional insane, the associative currents may be so feeble as not to establish themselves, and in the one case for moments, in the other for days or weeks, the painfully concentrated delusion may rule almost undisputed in the mind.

The more usual victims of this permanent delusional condition are the anemic subjects of acute melancholia. But a similar line of experience may sometimes come during the depressed early stage of paresis, while the subject is apparently robust. In the latter case, a history of syphilis may usually be obtained, and it is reasonable to suppose that the patient suffers from an endarteritis which shuts off the blood in part, and produces a condition of encephalic anemia, similar to that of the cachectic patient. In the paretic, as every one knows, a subsequent condition of arterial dilatation, particularly of the cortical regions, leads to a change of feeling, a sense of well-being supplanting the depressed condition. In the melancholiac, under favorable conditions the bodily anæmia is overcome, and with the return of general physical health the delusions fade away, a sense of normal well-being returns, and the period of depression and delusion is remembered as a time of terror, which the patient often aptly likens to a hideous and half-forgotten dream.

The salient feature of the conditions of mental aberration just considered is a maladjustment—a lack of proper coordination, between the menual processes. And this maladjustment resulted in a perverted judgment of the ego as to its own relation to its environment. In the nature of the case this must be so, since the ego, considered comprehensively, is the aggregate of the relations which are here maladjusted. These observations lead us, by antithesis, to a clear understanding as to what constitutes mental normality or sanity. If the kind of maladjustment that grows out of focalization of attention on one subject to the exclusion of correlated subjects is the salient point of departure from normality, then a wide sweep of the attention must be the criterion of sanity. And using "wide" in a flexible sense, this is strictly true. The eye must sweep a wide horizon and deep perspective in order to give us an accurate knowledge of our physical relations in space; and so the mind

must sweep a wide mental horizon and a deep mental perspective if it would gain a comprehensive and rational knowledge as to its relations to its environment.

Excluding all rays of light except a narrow stream through a microscope, the eye may gain a certain knowledge that it could not otherwise obtain, but that knowledge would be absolutely useless did not the memory of wider visions step in and correlate the microscopic object with an infinity of other objects great and small. So in strictly mental vision, concentration of thought on a single focus may bring out some idea that otherwise would escape attention; but that idea can never be regarded as sane or dependable unless it is at once correlated and compounded with the infinity of thought that at the moment make up the conscious and subconscious entity of the thinker. In the mental vision, as in the physical, the most active focalization must always bear upon a restricted area, which may lie in the foreground of the present, or, aided by memory, in the deep background of the past; but always the focal idea must be furnished with a deep and broad setting of penumbral ideas. The eve, which seems at a given moment to see only a single petal of a single flower, really sees that petal in its relations to other petals, to other flowers, to foliage, to an infinity of material things. And the mind which focalizes on the thought of that flower and seems absorbed in it, really has presented to it at the moment a host of vague concepts telling in the aggregate of the true personality of the ego. I cannot while awake and sane forget who I am and what I am, though I may fail to know where I am.

The very profoundest mind, and at the same time the one most eminently sane, is that which keeps constantly in view a very wide field of observations, and which is therefore able to constantly put its thoughts to the test of wide comparisons; while it is the essence of the insane mind to think in imperative concepts and to ignore the broad fields of association. So long as the mind is able to weigh its concepts, to class and label them, to make them fit a proper niche in the chamber of aggregate experiences, so long it is sane mind. So long as it can balance its concepts, it is not an "unbalanced" mind. But when an idea has come to assume undue prominence in the mind and to overbalance the correlative ideas, such isolated and accentuated

ideas come to partake of a delusional nature. The idea may be in itself a perfectly rational and true concept, or it may be a distorted and illogical one; the essential point being the lack of coordination between this idea and correlative ideas.

The presence of such a delusional concept may or may not coëxist with insanity. It would be a violation of the established usage of language to say that a race of people who believe in the divinity of a man-say Mahomet-are insane because of that belief, for such delusion is the established belief of the majority, and that fact constitutes its warrant as a standard of sanity. The presence of delusional beliefs is, therefore, by no means prima facie evidence of insanity. But, on the other hand, illcoordinated (that is delusional) ideas are never wanting in any given case of insanity. It is, as we have seen, the very essence of the psychic reduction which we call insanity to so limit the mental view and so distort its perspective as to give undue prominence to certain data, and to unduly subordinate other data. So true is this that one might define insanity as a condition of the individual mind in which there are entertained delusional ideas which are not entertained by the aggregate contemporaneous mind, and which have a dominating influence over the conduct of the individual. I doubt not most alienists would demur to this proposition; but I unhesitatingly challenge any one to produce a case of insanity in which, on close analysis, delusional concepts as above defined do not appear. True it may be said that no mind gives an absolutely equitable interpretation to its experiences. But the delusional concepts of the relatively sane majority of mankind (referring now to the individual delusions, not to massed beliefs), do not for long have a dominating influence over their conduct. They are usually capable of readjustment and of being made to approximate normality. Just in proportion as they come to be incapable of such readjustment do they carry their possessor toward the realm of insanity.

An absolutely sane mind would be one that adjudged with absolute accuracy the relative significance of all its experiences—whose mental vision, to use another figure, had been perfectly corrected for chromatic, spherical and all other aberrations, and whose channels of reception were absolutely clear. An absolutely chaotic mind, on the other hand, would be one that

saw everything in distorted proportions and failed to accurately adjudge any experience. Both these extremes are theoretical; we know nothing of the absolute in practice. But between these extremes are minds of all degrees of gradation. Those above a certain average degree of accuracy of coordination, we call sane; those below this average, insane. The highest mind is that which sees at once widely, clearly and vividly. But it may often happen that a mind eminently well-balanced may see but a small field, or have no part of its field vividly outlined, and hence be the mind of a dullard. On the other hand, it may happen that an ill-coordinated mind sees a part of its field in so intense a light that it is correctly spoken of as a mind of brilliancy and acuteness. In this rank are to be found some of the great philosophers, most of the great religious teachers, the so-called idiots surants, and a large class of minds confessedly insane. Still lower lie the minds that conceive neither widely, clearly, nor vividly-whose view is both limited in range and of distorted proportions. Here, far from the realm of stable genius, and also distant from, though allied to the unstable genius, are found the minds of the great majority of the insane. The latter class claim our deprecation, tempered with pity; the erratically brilliant class may dazzle and teach us, but cannot be accepted as a model or ideal; while the eminently stable class must ever be the criterion of the race, toward which our aspirations will point and toward which evolution will carry the race.

#### KIDNEY DISEASE AND INSANITY.*

BY GEORGE T. TUTTLE, M. D., First Assistant Physician of the McLean Asylum, Somerville, Mass.

The general opinion among writers has been that kidney disease is rarely an important factor in the causation of insanity. Griesinger says to Bright's disease, to which any etiological relation to insanity could be attributed, is very rare in the insane." Bucknill and Tuke twould expect, as a matter of theory, that Bright's disease might cause insanity, but they have not observed it. Savage reports a case, and in conclusion asks: "Was the insanity due to the kidney disease primarily?" Clouston, however, describes the insanity of Bright's disease as mania of a delirious kind, with extreme restlessness, delusions and absolute want of fear of jumping through windows, or other such actions, with remissions when the patient is quiet and rational.

When it is considered how many people die from some form of renal disease, and how few of them present any symptoms that would warrant a diagnosis of insanity, we should be careful in giving it much importance as a cause. It is probable, however, that there are those whose mental condition is in a state of so unstable equilibrium that the exhaustion from such a disease, and the poisonous effects of the retained products of retrograde metamorphosis of tissue, are sufficient to cause a true insanity. The following ease may be an illustration:

Female—Married, thirty-five, housewife. No insanity in her family. This was her first attack. There had been signs of chronic interstitial nephritis for a long time. Mental symptoms appeared five months before admission, when she had a convulsion, followed by three days of stupor. Since then she was said to have been "weak-minded," and had had delusions, because of the painful nature of which there had been recurring periods of violence, lasting three or four days at a time. This excitement was apparently due to fear, as she often thought friends were

^{*}Read before the New England Psychological Society, December, 1891.

⁺Sydenham Society Transactions, Mental Pathology and Therapeutics, p. 197, 1867.

[#] Manual of Psychological Medicine, p. 594, 1879.

[§] Journal Mental Science, Vol. 26, p. 245.

^{· |} Clinical Lectures on Mental Diseases, p. 596, 1883.

officers in pursuit of her. On admission to the Asylum she was in the last stage of chronic nephritis. There was a general edema of the subcutaneous tissue, of the lower lobes of the lungs, and considerable cardiac enlargement. Each examination of the urine showed a sp. gr. 1,010 to 1,015, about  $\frac{1}{4}$  per cent. of albumen, and an abundance of hyaline and finely granular casts. The quantity of urine during the last eight days of life was  $36\frac{1}{2}$ , 32,  $26\frac{1}{2}$ , 21,  $20\frac{1}{2}$  and  $14\frac{1}{2}$  oz.

Most of the time she was simply stupid, for brief periods quite rational, again talkative and excited, manifesting delusions, all of which were characterized by fear of personal injury, e. g., that some one was trying to kill her; that people were under the bed; that the gas would explode; etc. She died in coma, after a hospital residence of nineteen days. An autopsy could not be obtained.

The mental symptoms, so much more pronounced, and of so much longer continuance than the ordinary cerebral symptoms of chronic nephritis, make this a case of insanity. Coming on as it did in an advanced stage of one of Bright's diseases, in the absence of other assignable cause, it is presented as an example of the insanity of nephritis.

While it may be true that in exceptional cases renal disease may cause insanity, the converse is much oftener true, viz., that certain states of mind may cause renal disease. Such states of mind are those of melancholy, with great anxiety and mental distress, extending over long periods of time. In the course of a series of examinations, attention was drawn to the frequency with which albumen and casts were found in the urine of cases of melancholia, especially if in great mental distress, who presented no other signs of renal trouble.

The following cases were admitted to the McLean Asylum between 1886 and 1890:

CASE I. Simple melancholia—Widow, sixty-seven, house-wife. Mother was insane. She had had two previous attacks of melancholia, the first of fifteen, the second of sixteen months' duration. Each was characterized by brief periods of depression, alternating with comparative cheerfulness. Her husband died a year before this last illness, and she became increasingly melancholy, and was a prey to vague fears. She said that no one knew the torture she had endured in the past year; that she

wanted to die, but had not courage to use a revolver which was in the house.

After admission she tried hard to appear cheerful, but needed frequent assurance that was doing well and would recover, and no doubt suffered what in a weaker woman would have caused more outward manifestations of distress. Like her former attacks, the last was characterized by three distinct waves of depression, each of many weeks' duration, with intervening periods of comparative comfort. There was a slow but steady gain in general health and weight, and she was discharged recovered after a hospital residence of one year. Every examination showed a pale, acid urine, sp. gr. 1,013, with a slight trace of albumen, an increased sediment containing hyaline, coarsely and finely granular casts, with an occasional renal cell adherent. Heart normal, except accentuation of aortic second sound. No ædema of any part of the body was ever detected.

One year later her son, who is a physician, reported a trace of albumen, but no casts; health good. This last summer, four years after discharge, she was still well in body and mind.

CASE II. Melancholia - Widow, fifty-two, housewife. No heredity to insanity. She was usually well. A son was dangerously ill with typhoid fever, and for nine weeks she was with him daily, going from a neighboring city to the hospital in all kinds of winter weather. Her anxiety was so great that she lost much sleep. She was at the menopause, and her distress of mind and over-exertion at this time of her life were supposed to be the cause of her mental trouble. She developed an indefinite anxiety, rather a sensation than a clearly defined idea, during the three months following her son's illness. She showed the first signs of it in words to her friends about ten days before admission, expressing herself then as fearing that something serious was about to happen to some one of her family. She soon had more definite ideas; she had been cheated; everybody was conspiring to injure her; many robberies had been committed, with which she expected to be charged. All sounds were interpreted as having some peculiar significance and to her harm; slept fitfully, with hypnotics; ate fairly; was said to have lost some flesh.

She said that while at home everything she did appeared to be

wrong, or to cause injury to some one, and she came to the asylum that her acts might not be followed by evil consequences; but in a day or two it was as bad as at home; everything she did was wrong.

Her delusions became more distressing. She took as little food as possible, because she "would be eating the bodies of her nearest friends." Was removed after seventeen months, while in this state of mind, to try the effect of change.

Examinations of the urine showed a sp. gr. varying from 1,012 to 1,027, a trace of albumen, a few hyaline and finely granular easts, and calcic oxalate crystals. Heart sounds normal, except for a systolic murmur heard best at the base. No ordema.

It was reported by a physician, one year later, that she had improved very much mentally, and that there was no sign of renal disease.

CASE III. Mania, with distressing delusions-Married, fortytwo, housewife. No insanity in her family. Was of a very nervous temperament. Had had two previous attacks, similar to this but not as severe, from which she recovered at home. The first occurred about five years before, and lasted a week or two: the second a year before this, and lasted a month at least. She was mentally depressed for a few weeks the summer before admission. Her married life had been full of painful experiences, because of the conduct of her husband, who left her a year before, under the most distressing circumstances. It was thought that the immediate cause of the present attack was family and business trouble. After such trouble she took her bed, two weeks before admission, utterly prostrated. As in each of her other attacks she soon developed false sight and hearing; had delusions that people were setting fire to her house; that there was a conspiracy against her; that papers were signed by occupants of her house, charging her with various crimes; etc. Whatever of depression she manifested was secondary to such delusions. She became so much disturbed that she could not as before be taken care of at home, and was removed, first to a general hospital, where she remained four days. She had paroxysms of violence; was at times incoherent, frenzied and suicidal; slept only with hypnotics.

On admission to the asylum she was in a state of considerable excitement. She soon mistook the nurses for people of her

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acquaintance who were acting as spies. She had quite constant false hearing—people up stairs were reading telegrams about her; there was a conspiracy to sell her house, and take all her property; "they" were about to publish an article in the newspapers, making all sorts of accusations against her; her food was poisoned; etc. She was in great distress of mind, and showed it by her restlessness, flushed face, and mouth so dry that she could scarcely articulate. Sleep was gained only with hypnotics. This condition continued for a month; after that she gradually improved, and one morning suddenly realized that she had been sick, and that the voices she had heard were not real. She was discharged recovered in two months.

Repeated examinations of the urine showed the daily quantity to vary from 30 to 50 oz., the sp. gr. from 1,012 to 1,023. There was always a slight trace of albumen, and a few hyaline, granular, and occasionally epithelial casts. There was no ædema. There was a doubtful apex systolic murmur, not transmitted; no cardiac enlargement. There has been no opportunity for urinary analysis, but five and a half years later she was apparently in good bodily health.

Case IV. Mania, with distressing delusions—Married, thirty, housewife. A maternal cousin was temporarily insane. She was naturally very nervous, and liable to faint from slight causes. She had borne four children, the youngest four and a half months before admission. All the labors were normal, and no mental trouble had followed the others. On retrospect, her friends thought she had been at times "peculiar" since the death of a child, two years before. She made statements about her children and the neighbors that were highly improbable. Her delusions about the neighbors were those of persecution of herself and her family. Nothing attracted much attention, however, till about a month before admission, when, because of these delusions, she became excited, and had been more or less so ever since, sleeping only with the use of hypnotics. She gave the most conclusive evidence of illusions of hearing.

After admission she remained in about this condition for three and a half months,—somewhat confused, walking about from place to place, looking for the people whose voices she heard; sometimes noisy, usually not; eating when urged, but sparingly; sleeping with hypnotics; always, when awake, in a state of great

agitation and distress of mind. The pulse varied from 80 to 110, the temperature from 98° to 100° F.

Examinations of the urine showed sp. gr. 1,008 to 1,025. Urea sometimes increased and again diminished, a trace of albumen, hyaline, granular and epithelial casts, free blood and renal epithelium. There was ædema of ankles. Heart sounds were normal. In three months she began to improve in her mental condition; the ædema disappeared, and most of the casts. The mental gain was not all that could be desired, for she still had false hearing when taken, at the expiration of nine months, to an asylum in another part of the country. There was also a trace of albumen, and an occasional cast.

Fifteen months later her husband reported that she was well mentally, and that there was no evidence of renal disease.

CASE V. Simple melancholia-Married, fifty-eight, housewife. Maternal grandmother, uncle and aunt were insane. The sickness and suicide of this aunt was a great strain upon her. Her husband had been an invalid for years. When well she was a bright, active, cheerful woman, who took an interest in many things. This was her first attack of mental disease, and was of one year's duration. She had depression of spirits, decrease of the power of voluntary attention, morbid apprehension, and was suicidal. Her morbid apprehension was chiefly concerning herself. At one time she expected to be paralyzed, afterward she had dimness of vision and feared she was becoming blind. Her eves had been twice examined by an eminent oculist, who found no organic change. Latterly she lost somewhat in self-control and talked more of suicide. Slept poorly. Bowels constipated. Some loss of flesh-weight 109 pounds. Heart and lungs apparently normal-slight adema at night over tibiæ. Pulse, 80 to 90; temperature, normal. Urine, 121 to 15 oz. in twenty-four hours; sp. gr. 1,020 to 1,025; urea, less than half the normal amount; a trace of albumen. and in the sediment calcic oxylate and calcic phosphate crystals. hyaline and coarsely granular casts and free renal epithelium.

The treatment was rest, massage, a liberal diet, more liquids than she had been taking, tonics and laxatives, no hypnotics, and all the moral treatment that could be brought to bear. In three and a half months she had gained about fifteen pounds in flesh, had lost all dimness of vision, and was entirely recovered of her melancholy. The ordema had disappeared. The urine had steadily gained in quantity from  $12\frac{1}{2}$  to  $32\frac{1}{2}$  oz. daily; urea had increased to the normal amount; the albumen was gone; and in the last analysis only one hyaline cast was found. She is now, after nearly a year, apparently well.

Without reporting more cases at length the following table is given, which shows results of urinary analyses in two hundred cases of women—consecutive admissions. It will be observed at once that a large proportion of the whole number had albumen and casts, 27.5 per cent.; also that a still larger proportion had albumen alone (accidental albuminuria), 32 per cent. As would be expected from what has been said, cases of anxiety and distress of mind show a much larger proportion of renal symptoms than cases of ordinary mania. Melancholia and mania with distress have albumen and casts in 47.9 per cent., while ordinary mania in only 14.3 per cent. Cases of other forms of insanity are too few to make percentages of any value. Both the heat and nitric acid tests were used in each case.

Summary of the Analyses of the Urine in Two Hundred Consecutive Cases in the Female Department of the McLean Asylum.

DISEASE.	Total Cases.	Albumen and Casts.	Albumen, no Casts.	No Albumen, Casts.	No Albumen, no Casts.	Hyaline Casts.	Granular Casts.	Epithelial Casts.	Blood Casts.	Pus.		Crystals, Urates, Oxalates.
Melancholia,	65	27	15	1	22	25	19	4	1 1	8 14	15	41
Mania with Distress,	8	8	0	0	0	8	7	3	0	1 6	3	5
Mania,	63	9	25	1	28	8	3	3	21	6 11	11	36
Dementia,	19	1	. 9	1	8	1	2	1	0	4 8	3	8
Delusional Insanity,	18	2	3	0	13	2	2	0	0	3, 1	1	5
General Paralysis,	10	4	5	0	1	3	3	2	0	5 5	2.	4
Neurasthenia,	10	2	4	0	4	1	2	0	0	4' 2	2.	5
Fixed Ideas,	3	1	1	0	1	1	1	1	0	0 (	0	3
Hypochondria,	2	0	1	0	1	0	0	0	0	1 (	0	0
Hysteria,	2	. 1	1	0	0	1	1	1	0	1: (	0	1
Totals,	200	55	64	3	78	50	40	15	3 6	3 40	37	108

It is difficult to give a satisfactory theory in explanation of the renal symptoms in this class of cases, but in the absence of other more manifest cause it is highly probable that the mental condition is primarily concerned. Patients in such a state of mind are poorly nourished as a rule, and all the bodily processes are on a low plane, as is indicated by digestive disturbances, loss of flesh, and subnormal temperature. Assimilation is not complete, elimination is less active and a partial auto-intoxication results.* The blood from its excess of waste matter irritates the kidneys. Confirmatory evidence of the correctness of this theory is found in the fact that bile, oxalic acid, uric acid, and sugar in the urine frequently cause albumen and casts.

It is probable, however, that the disturbances in the circulation of the blood play quite as important a part. Increase in the quantity of urinary excretion under the influence of the emotions is a matter of the most common observation; a full bladder after a lively activity of pleasurable emotions or of stress of mind is a frequent occurrence in healthy people, and it is also symptomatic of the abnormal emotional state of the hysteric. Nervous states may cause also a diminution or even, for short periods, suppression of the urine. The composition also may vary under psychical and nervous influences, and among other changes most authors recognize a nervous albuminaria produced, perhaps like the changes in quantity, through the vaso-motor nerves of the kidney. Cowlest has shown the dependence of worry as a mental symptom upon neurasthenic conditions, and, when this mental state is once established, whether its initial cause be physical or psychical, its counter effect through the influence of painful emotions upon the circulation and nutrition. Such well recognized effects of mental states upon the bodily functions lead to the conclusion that changes in the blood itself and in its circulation in the kidneys are the elements, themselves depending on the mental state, which may possibly explain the renal symptoms in the class of cases under consideration.

Such a cause of kidney disease is recognized by nearly all writers and emphasized by a few, but the most pass it by with brief mention. Purdy‡ speaks of mental influences as favoring the production of chronic interstitial nephritis. T. Clifford Albutt§ in a paper on "Mental Anxiety as a Cause of Granular

^{*}See study of the relation of auto-intoxication to neurasthenic conditions and their mental symptoms in the Shattuck Lecture for 1891, by Edward Cowles, M. D., Boston Med. and Sury. Journ., Vol. 125, p. 97. See also his article on The Mechanism of Insanity, Amer. Journ. of Insanity, July and October, 1891.

[†] Loc. cit

[#] Bright's Disease and Allied Affections of the Kidneys, p. 142, 1886.

^{\$} British Med, Journ., 1877.

Kidney," gives to "mental anxiety and prolonged distress a high if not a chief place." He says it is "impossible to prove this by reading cases, and the opinion must stand or fall by the general voice." He had notes of thirty-six cases, and in twenty-four there was a marked history of mental distress, or care, or both. He gave no theory in explanation, but merely said, "concerning the connection of depressing passions with granulation of the kidney I offer no opinion."

Dickinson* gives as one of the causes of granular degeneration of the kidney "prolonged mental disturbance, anxiety or grief." "This cause of the disease," he says, "is perhaps problematical; the mode of its operation is not obvious, but must be surmised as through the nervous system. A lowering of nervous force is to be recognized as at least predisposing to every form of albuminuria. I have seen so many instances in which granular degeneration has been immediately sequent upon trouble that in the absence of other causes I am fain to conclude that mental conditions are sometimes concerned in its production."

Savage† says "Domestic trouble, so called, is one of the most far-reaching of morbid actions. The appetite is impaired, digestion fails, sleep is disturbed, respiration is no longer regular and quiet; the pulse becomes hard, the tension being high. The more the development of such conditions is watched, the more one is convinced that grave nutritional changes are going on. I am convinced, with Dr. Sutton of the London Hospital, that this condition may readily pass either into Bright's disease or insanity, and I would look upon the degree of tension in the whole body as the dangerous element to be considered."

Albumen and casts have been found so often in these cases that a long continuance of agitated melancholia without such symptoms is unusual. Whatever the cause, it evidently operates to produce a change in the kidneys, as is shown by the albuminuria lasting for months and the presence of casts—not only hyaline, but granular and epithelial as well, with ædema in some of the cases.

It is an eminently practical question whether this is merely a temporary affair from which the patient will recover if its cause

^{*}Treatise on Albuminuria, p. 108, 1881.

[†]Insanity and Allied Neuroses, p. 44, 1884.

ceases to operate within a reasonable time, or whether it is the beginning of one of the forms of Bright's disease, which years afterward may result fatally. A decision of this question will take a long time and careful observation. The renal symptoms usually subside as the mental condition improves, and in a few cases it has been possible to observe their complete disappearance, but one of the earlier cases still has albumen and casts at the end of six years, though apparently well in body and mind. At this stage of my observations I am inclined to expect a recovery if the mental condition be of reasonably short duration, not giving time for a serious organic change in the kidneys. If, however, the cause operates for a long period of time the most serious consequences are to be feared. So much is said now of albuminuria in healthy people, ascribed to various causes, that perhaps there is danger of considering its presence of comparatively slight consequence. Albumen is not a normal urinary constituent and its presence for any length of time is a serious symptom. Indeed it is quite possible that some of these cases are in an early stage of Bright's disease.

If kidney disease is a common sequent to anxiety we have a most important element, which is often added to other well recognized causes, in the hurry and bustle, cares and troubles of modern life; and we certainly ought to find it in melancholia, for no real distress of mind can exceed that which accompanies and is symptomatic of this form of insanity; and, furthermore, it would be expected that Bright's disease in the later stages would be found with considerable frequency among the insane. On this last point there is no agreement among authors. Griesinger has already been quoted as against its frequent occurrence. Blandford* says "There is little to be said concerning the kidneys. In the pathology of commencing insanity they play a very unimportant part, and even after death they are not often found diseased. Acute renal disease with albuminuria and dropsy is decidedly rare among the insane."

Bucknill and Tuke† say "The kidneys are remarkably free from disease in all the forms of insanity, and the changes which give rise to albuminous urine are especially rare in them. We have only met with three instances of decided Bright's disease

^{*}Insanity and its Treatment, p. 79, 1877.

[†]Op. cit., p. 594.

among the insane; and upon inquiry in other asylums we have found that the experience of others has been of a similar nature."

Sankey,* however, frequently found kidney disease in his autopsies—adhesion of the capsule in nearly one half the cases, and in a large number abundant evidences of disease, atrophy of the cortex, fatty degeneration, waxy disease and general atrophy.

Howden of the Montrose Asylum reports kidney disease in 97 out of 235 autopsies, or 41.3 per cent.

In Dr. Fisher's report of the Boston Lunatic Hospital for 1886 is to be found a most interesting tabulation of 68 autopsies made by Dr. Gannett. Some form of disease was found in the kidneys of 29 or 42.6 per cent. This excludes simple congestion or injection, atrophy, tuberculosis and cysts, and includes three cases of chronic passive congestion which would probably have caused albumen and transparent, perhaps blood casts. It will be observed that it is practically the result obtained by Howden in a larger number of cases.

By the courtesy of Dr. Rowe, Superintendent of the Boston City Hospital, there were taken from the records the results of sixty-eight consecutive autopsies, also by Dr. Gannett, and kidney disease was found in thirty-eight, or 59.9 per cent. Many of the patients in the general hospital died of acute disease with high temperature, giving a large proportion of cloudy swelling, twelve of the thirty-eight being instances of this change; while in the autopsies at the Boston Lunatic Hospital cloudy swelling was found in only two cases. Excluding the cases presenting this change, evidences of renal disease were found in 39.7 per cent. of the autopsies in the asylum, and in 38.2 per cent. in the hospital. This comparison is manifestly to the disadvantage of the asylum from this point of view, because so many cases in the general hospital are primarily treated for renal disease. In twenty autopsies by Dr. Gannett at the McLean Asylum, disease of the kidney was found in five.

An obvious criticism of these results is that the number of cases is too small to be of much value, but they would appear sufficient to prove that renal disease is much more frequent among the insane than authors have commonly thought.

^{*}Lectures on Mental Disease, p. 241, 1884.

Conclusions:

First. Chronic nephritis is sometimes the cause of mental aberration, which may be called insanity.

Second. Long-continued anxiety may cause albumen, hyaline, granular, epithelial and blood casts in the urine, with accompanying cedema in some cases.

Third. This kidney affection may be temporary, disappearing when the cause is removed, or, the cause persisting too long, may become chronic renal disease.

Fourth. Contrary to the opinion of many observers, disease of the kidneys is quite common among the insane.

## THE BICHLORIDE OF GOLD CURE FOR INEBRIETY.

BY H. M. BANNISTER, M. D.,

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Within the past eighteen months public attention has been especially drawn to the subject of the treatment of inebriety. through the claims and advertisement in the public press of a so-called new method of treatment, which, according to the statements of its advocates, is one of the greatest discoveries of the age. A little known prairie village in Illinois and a hitherto undistinguished local practitioner of medicine have obtained through it a national, if not a yet wider fame, and there have started up numerous branch establishments in various parts of the country to extend the benefits of the cure and enrich the coffers of its proprietors. The suppression of inebriety and the reform of inebriates are matters of such importance in a social and political, as well as in a medical point of view, that it is no matter for surprise that the public interest has been thus aroused, and a phenomenon, such as is presented by the Keeley cure, which offers certain points of interest entirely apart from its professions and its reputed success, is not unworthy of notice, notwithstanding its irregularity in a strictly professional point of view.

That the whole thing is entirely irregular in the point of view of professional ethics is certainly beyond question. The remedy is claimed to be an absolute secret, which the discoverer, while claiming that it is an inestimable boon to humanity, refuses to give to the world. Its claims are not modest or of the character that would be considered legitimate in scientific medicine. I have before me the label from one of the bottles sent out for the treatment of the morphine habit, on which I read: "A tested and infallible remedy, discovered by Dr. Leslie E. Keeley, Dwight, Ill., * * * the only known medical agent that will effectually and forever break up the opium habit in all its forms." "Sold only in companion bottles. Price \$10 the pair." In this it is no better than the great mass of irregular, advertising, secret proprietary medicines; only more extravagant in its price and in its claims than many of them.

Notwithstanding all this, there is much that is worthy of attention in this treatment. As regards the constitution of the remedy or remedies not much is absolutely known—at least, not to the general medical public. Some analyses have been published, but their accuracy has been denied by Dr. Keeley. It is quite probable, however, that it contains besides the chloride of gold and sodium, (though this was not reported in all the analyses above mentioned,) nitrate of strychnia and some mydriatic, such as atropine or hyoscine. The secret, it is claimed, is the eliminant that enables the salt of gold to be employed with safety to the patient. Since chloride of gold, properly used, is not necessarily a dangerous remedy, this may not seem important, but, with the wholesale methods of treatment employed at Dwight, something of the kind may be of advantage. The methods there followed, with the numbers treated, must necessarily be of a wholesale character, and not much individual or discriminating attention can be given to the great mass of those who come for the cure. The great number of those who treat themselves at home with the bottles of medicines sent out at nine dollars the pair, should also be taken into consideration.

It is said that at Dwight between six hundred and one thousand men receive their hypodermic injections, from three or four operators, four times a day, and that they pass through their hands at the rate of several each minute. Only the most casual and slight examination can be given on these occasions,. and if the drugs employed are specially powerful or dangerous it would naturally be expected that unfortunate accidents might easily occur. It is quite possible that the quantity of any powerfully acting ingredient in each injection is very small, and that any real effects of the medicine are obtained by the frequency of the dose-a sort of continuous medication being, in fact, employed, and that in this way some of the apparent dangers are avoided. Besides the hypodermic injections, it must be remembered bi-hourly administration of an internal remedy is required of the patient, so that by regulating the strength of the doses there is ample opportunity for saturation of the system to any extent that may be considered desirable.

The effect of the drug on the system, from some accounts, appears to be quite marked. There is in most cases, according

to the testimony of those with whom I have conversed, and according to some printed accounts of the Dwight cure, a decided embarrassment of vision and a loss of memory for at least a few days after beginning the treatment, and some have also testified to a temporary abolition of sexual power and desire. One ex-patient from Dwight stated to me that according to his best knowledge and belief, his mind must have been almost a perfect blank for two days, that he knew nothing of his past life and very little of what was going on about him, and that he must have lived, as it were, automatically, taking his meals, sleep, and medicine as he saw others do. There are numerous attendants connected with the cure who can look after such cases as these and others who may require attention. The patients are also said to be very helpful to one another; in fact one of the most striking features of the place is the general enthusiasm and good feeling that prevail among them. As one of them, a very intelligent gentleman, who was quite capable of judging and discriminating in these matters, expressed it, "the whole atmosphere of the place was that of a camp-meeting or a revival," and to this he was inclined to attribute a large proportion of the good effects of the treatment. Naturally everything that can be done is done to encourage and keep up this feeling, and I have no doubt that whatever good effects the medication may have in temporarily allaying the morbid appetite, any genuine success of the cure in reforming drunkards must be attributed to the associations, mental suggestion, and mental expectation thus afforded. The patients are, as a rule, prepared for the influences of the place; the majority go there voluntarily with a desire, or at least a willingness, to be relieved of their evil habits and with faith that they will obtain relief. This constitutes more than half the cure in any case. It is just possible that the medicines given may have an effect on the nervous system, rendering it more impressible to the influences and associations of the surroundings, or that they may even directly affect the mental condition. Chloride of gold is said to stimulate the brain and to produce marked mental exhilaration, and there is just a suspicion of a sort of auric intoxication in the mental conditions so generally observed in the patients of the bichloride of gold cure. There is, however, no certainty of this; and as no other ingredient of the secret remedy has been given to the public, we can say even less as to the effects of other drugs it may contain.

As far as the benefits of the Keeley cure are concerned, the answer to the question, What good does it do? must be sought for in some sort of statistical estimates of the number of reformed individuals that comprise its results. It is evidently impossible to make any even approximately accurate conjecture of this figure. Dr. Keeley himself declares that ninety-five per cent. of those that pass under his treatment are permanently cured and do not relapse into drunkenness. This may be taken entirely as the estimate of an interested party: and, indeed, considering the claims made by his supporters, in his circulars, and on his labels, it is perhaps more surprising that he admits five per cent. of relapses than that he claims ninety-five per cent. of success. An infallible remedy should have no failures. Leaving entirely out of the question, however, the fact that an abstinence from drink for a few weeks or months, or even a year, cannot be considered a permanent cure, (many a hopeless periodical drinker has a cycle as long or longer than this,) and that, as vet, sufficient time has not elapsed to fairly test the matter, it is impossible to see how anyone can follow the careers, even for a short time, of all those that have tried the Keeley cure. The average period of treatment is said to be about four weeks. Therefore the whole patient population of the establishment must change about once a month. They come from every portion of the country, and it is only fair to presume that a very large proportion of the whole number pass out of mind as they pass out of sight. Besides this, the failures would naturally be the last to report themselves. Amongst the few graduates of Dwight of whom I have had any personal knowledge, aside from a certain number (of mostly relapsed eases) with whom I have become acquainted as taking a post graduate course in the asylum with which I am connected, a much larger proportion of failures have occurred than that admitted by Dr. Keelev. It is hardly fair, however, to place the small number with which I am acquainted against the general average. Allowing that fifty or even twenty-five per cent. are permanently cured of the drink habit, and that these could probably not have been reached in any other way, it cannot be denied that good has been accomplished. I believe that these figures will in the end be found to be much more nearly correct than the estimate made by Dr. Keeley.

It would be perfectly fair, if it were practicable, to make here a comparison between the results of the chloride of gold cure and those of any one of the temperance revivals which we have all observed in different parts of the country. In making such a comparison it would be necessary to equalize the conditions by eliminating the hopeless sots and dipsomaniacs that Dr. Keeley excludes from his cure. The comparison can better be made a few years from now, and, if it ever can be made approximately, for that is the best that can be expected, I doubt whether the general result will be any more favorable to the Keeley cure than to the other. Of course this is only an estimate, but I think it is a reasonable one. Society is full of reformed drunkards who have broken themselves of their evil habits entirely from moral impulses.

The evils of the Keeley cure are, in my opinion, first, that it is irregular, and depends to a certain extent on secrecy and mystery. Dr. Keeley himself is reported to have said that if he should give his secret to the world it would lose its value. This is true, perhaps, in a sense in which he did not intend it. Already there are starting up new cures which claim equal infallibility, and there will probably be a multiplicity of these in the near future. Secondly, the necessarily wholesale and indiscriminate character of the treatment. If the remedies are powerful enough to derange the nervous system to the extent evidenced by the disorders of vision and of memory which are stated to accompany the treatment, it would be considered very bad medical practice to dose hundreds at once so far as to produce these derangements, without at least such careful and frequent examinations as would insure against any possible physical conditions existing that would contra-indicate it. This seems to be impossible with the methods employed at Dwight.

If, on the other hand, the remedy is absolutely harmless, as is claimed, in a recently reported interview, by its discoverer, it makes but little difference how it is administered. It is difficult to see how this can be the case, if it contains any quantity of chloride of gold or other active drug; but, with a remedy thus claimed to be a secret, it cannot of course be stated positively what are or will be its effects.

Another possible evil effect of the Keeley cure, that occurs to me, is the lessened estimation in the public mind of the value of moral influences in the reform of habitual drinkers, if the popular faith is pinned on drugs, and the evil of intemperance is considered an ailment to be treated and cured by secret or proprietary medicines. One of the most powerful and important agencies of reform, the moral sense, is ignored or disparaged. While inebriety in later and more advanced stages, and in its hereditary form, may properly be called a disease, and too frequently a hopeless one, the habit of drinking to excess and to the damage of the individual is not necessarily to be considered as anything other or more than a vice for which the individual is morally responsible. In my opinion, the only chance of reform in many cases of apparently hopeless inebriety is through some powerful stimulus of the higher nature, such, for example, as religious conversion, which is not to be brought about by internal and hypodermic medication. A dependence solely on physical means can have in these cases only a disastrous effect. It is probable that this view of the case is not entirely ignored by Dr. Keeley, but there is a tendency on the part of many of the public to accept too readily whatever may appear to palliate the offence of drunkenness, and the disease theory of inebriety is eagerly adopted.

In conclusion, I would say that we can welcome any good that the Keeley cure can produce without endorsing its methods or accepting its extravagant claims. While it is a possibility that the remedies used have some effect in removing or alleviating the thirst for drink for the time, the real cure depends entirely on the will power and good intentions of the patient, which are fostered and strengthened by the associations of the place. These alone are the real remedies for inebriety.

# MECHANICAL RESTRAINT IN THE TREATMENT OF THE INSANE.

BY W. L. WORCESTER, M. D., Assistant Physician, State Lunatic Asylum, Little Rock, Arkansas.

Notwithstanding all the free discussion of this question for many years in professional meetings and journals, and in the lay press, by alienists, neurologists, general practitioners, philanthropists and cranks, it is evident that unity has not been reached, either in faith or doctrine, among those who are engaged in the care of the insane. An article, by Clark Bell, Esq., published in the Medico-Legal Journal, [December, 1891,] revealed the fact that, while several superintendents of hospitals for the insane who had been consulted by the writer condemned the use of mechanical restraints utterly, and in all cases the decided majority believed it to be not only allowable but beneficial under certain circumstances, and doubtless, if all the facts were known, the divergence in practice would be found to be quite as great as in theory. It would seem difficult to say anything new on a subject worn so threadbare as this, and I have no expectation of bringing forth anything original; but in reading the article above referred to I was struck with what I have noticed before in discussions of the subject—a tendency, whichever side of the question was taken, to deal entirely in generalities. It has occurred to me that, in this as in other matters, histories of concrete cases might have a certain advantage over a discussion of abstract principles. My object, in this article, is to illustrate the conclusions to which I have come in an experience of fourteen years among the insane, by giving some of the facts which have led me to them.

Notwithstanding the want of complete agreement, I think it may be safely said that certain facts bearing on the question are established beyond reasonable doubt. Among them may be mentioned the following:

- 1. Institutions for the insane can be conducted with a very great measure of success without the employment of mechanical restraints in any form.
  - 2. In a great majority of the cases in which, until recently,

mechanical restraints were, by common consent, held to be necessary, experience has shown that the ends which were thought to justify their use can be better attained by other means. Employment, amusement, the removal of causes of irritation, combined with watchfulness, patience and tact on the part of attendants, are, in the great majority of cases, better safeguards against violent and disorderly conduct than straps and straightjackets, and the habit of dispensing with coercive measures cultivates the ability of managing patients without them.

3. In a certain small proportion of cases such measures as are indicated above are unavailing. No one, I presume, would expect to control a patient in epileptic furor, or in the raptus melancholicus, by moral suasion. In such cases, apart from mechanical restraints, there are three classes of expedients that can be adopted to check the mischievous activity of our patients, namely, manual restraint, seclusion, and the administration of sedative drugs.

My own views on the subject were formed during my residence in the Michigan Asylum for the Insane, and subsequent experience has not materially modified them. My stay in that institution may be divided, with reference to this matter, into two nearly equal periods. At the beginning of my service, in 1878, and for about five years subsequently, restraining apparatus was kept on all the wards; attendants were allowed considerable liberty in its application, and there were few wards in which it was not in pretty constant use. I may say that during this period I was convinced that a much smaller amount would have answered the purpose quite as well, and used it in many cases in which I should have dispensed with it if the matter had been left to my judgment.

In the winter of 1882-3, if I am not mistaken, the first systematic and general effort was made throughout the institution to determine how far such measures could be dispensed with without detriment to the patients. Success with some very unpromising cases stimulated to increased effort; a spirit of emulation was aroused among attendants and physicians; if one attendant failed, another was tried, and, although restraints were at no time entirely abolished, I think I am justified in saying that, during the last four years, they were not used in any case in which the experiment of dispensing with them had not

been thoroughly and faithfully made. I therefore feel myself competent to speak from experience of both plans, although I am aware that some of the enthusiastic advocates of non-restraint deny that it is possible for any one who is not unconditionally committed to that system to be a competent judge.

So far as the experiment was carried, the beneficial effects of the change far exceeded the most sanguine expectations of those who conducted it. The improvement in the quiet, order and cleanliness of the wards was very striking. Acts of violence, instead of becoming more frequent, as had been feared, became much rarer; seclusion and "chemical restraint" were less frequently employed, and it was found practicable, even on the worst wards, to do much more in the way of furnishing and decoration, to make them attractive, than had been thought of in the days when the violent and destructive impulses of the patient had been habitually held in check by mechanical means. The confined "airing courts," in which the more excited class of patients had taken their exercise, were torn down; the doors of a number of the wards were left open during the day, and the rooms at night. Some of the most violent, destructive and filthy patients were transformed into industrious workers, others into quiet, orderly and contented members of the household.

In some cases, however, the plan of non-restraint, considered as a means of promoting the comfort and well-being of our patients, proved a failure in our hands. I will give brief accounts of a few such cases, including some that have been under observation in this institution.

### I-PERSISTENT VIOLENCE AND DESTRUCTIVENESS.

An elderly woman who had been constantly restrained for a number of years, on account of violent and destructive propensities, was taken in hand after all other restraints had been abolished on her ward. For more than two months, during the greater part of which time she had a special attendant, she turned the ward topsy-turvy. She was usually good-natured unless interfered with, but was in constant motion, disarranging everything movable, interfering with other patients, and always ready for a fight if checked. Frequently she would assault attendants or patients without warning or provocation, and apparently without any personal malice, merely out of mischief.

On one occasion she seized her attendant by the ears and bit her nose severely. Fortunately most of her incisor teeth were gone, otherwise she would doubtless have performed an amputation. A few minutes afterward she told the attendant she did not know why she did it. She was also much addicted to exposing her person. During the time of the trial not the slightest improvement took place in her habits. She was absolutely indifferent to the restraints, neither showing any satisfaction at their removal nor any annoyance when, after what was thought to be a sufficient trial, their use was resumed.

A young woman, at present under my care, seems, most of the time, entirely indifferent to her surroundings, but will frequently make sudden and unprovoked assaults on any one who happens to be near. She springs up, strikes, and it is all over before any one can reach her. After persevering and entirely fruitless efforts to improve her habits in this respect, she was restrained by a loose belt and wristlets. She never showed any reluctance to wear them, and I am unable to see that they interfere in the slightest degree with her comfort. The only noticeable difference is a conspicuous absence of the black eyes and swollen noses which formerly, for weeks at a time, adorned the countenances of her fellow-patients.

In such cases as the foregoing, no improvement can reasonably be expected from restraints, any more than from other means. They are simply, under the circumstances, the most efficacious and humane means of preventing injury. There are, however, cases in which they are a most valuable aid in combating vicious propensities and forming habits of self-control.

A male epileptic—a very large, powerful man—was in the habit of persistently tyrannizing over the other inmates of his ward, knocking them down on the slightest provocation. Expostulation did no good, and interference came too late. He was finally informed that such conduct must and would be stopped, and that on the next repetition of it he would be put in restraint. The opportunity came within a few days. The muff was applied and worn for the remainder of the day, and then removed upon his promise of better behavior, which he kept for more than two months. At the end of that time, a fresh offence was followed by the same discipline, with like favorable effect.

A female paranoiac, after the clothing which she brought with her to the asylum was worn out, refused to wear what was furnished for her, on the ground that it was not her own. When dressed by the attendants, she would make a violent resistance, and begin tearing her clothes off the moment she was released. She was finally dressed, restrained with the muff, and told that she would wear that clothing, in one way or another; that the restraint would be removed when she agreed to wear it without, and not sooner. She remained obstinate for four days, at the end of which time she surrendered, and has never since given any trouble on that score.

### II-FILTHY HABITS.

The following cases seem to me both singular and interesting, although the subject is, in itself, not very attractive. Every asylum physician has probably had experience with some patients who have a predilection for bedaubing their persons and the walls of their rooms with excrement. There are various ways of combating this evil. Although not exactly pertinent to the present topic, it may not be amiss for me to say that I have completely broken some very obstinate cases of this habit by the administration of enemata or suppositories of glycerine at bedtime, producing a free evacuation of the bowels. In cases in which there is regular night-nursing, patients can, of course, be prevented from gratifying this propensity, but such patients are sometimes too restless and noisy to sleep in associate dormitories, and sometimes it is impracticable to administer enemata, or they fail of their effect. In several such instances I have found that if the patients are prevented from smearing it seems to control their bowels entirely.

The first case of the kind that came under my notice was that of a man, demented from early youth, with a tendency to restlessness. He was a most persistent smearer, and, after exhausting my resources upon him without the slightest success, I directed that he should be put to bed in a "crib," which had stood vacant for some time, for the reason that it would allow him less surface to go over. To my surprise, the attendant reported that he found him entirely clean the next morning, for the first time in months, if not in years. Still more surprising

was it when this state of affairs continued during the whole of the remaining time—over six months—during which he remained under my charge.

A woman, suffering from chronic mania, had been, for years, noisy, restless and filthy at night. After failing with other measures, I directed that she should wear the must at night. The result was that instead of being up about her room the greater part of the night, she lay quietly in bed the whole night, and was found clean and dry in the morning. This continued while the restraint was used; on its suspension she resumed her former habit of bedaubing everything within her reach at night, and dropped it again on resumption of the restraint. At present she has dispensed with it for some weeks without a return of her filthy habits.

In the case of another woman of similar habits, the use of the muff for about a week apparently worked a complete cure of all disposition to that sort of untidiness. I confess that I do not understand the rationale of the reform in these cases, and should not wish to promise similar results under like conditions.

# III—RELATIONS OF MECHANICAL RESTRAINT TO THE SAFETY OF PATIENTS.

Mr. Bell, in the paper above referred to, prints a letter from Dr. L. A. Tourtellot, from which I will quote a passage bearing upon this subject:

"The most serious abuses found in asylums are, of course, the injuries so often inflicted upon patients by their attendants." * * * "It is easy for attendants to combine together to indulge their brutal passions or their love of ease, and the various mechanical restraints which have been devised are well fitted to serve their purpose. There is no one to dispute with the attendant that the facts in any case are as he represents them, and if restraints are admitted to be necessary or one patient, they can be made to appear so for twenty or fifty. Now it is in the unnecessary, and therefore unjust, use of these restraints, and in the resistance provoked by such use, that the greater number of cases of violence to the insane have their origin. Where the use of restraining apparatus is wholly forbidden, and especially where it is known that everything of

the kind has been banished from the asylum, the methods of attendants must of necessity be changed. There is no safety except in constant watchfulness, and where the patient is no longer absolutely helpless, as when restrained by a camisole or muff, the proper means of moral control are resorted to, and are found effective beyond all expectation. From being a master, the attendant becomes the guardian and friend of his patient, whose delusions of enemies surrounding him slowly fade away, and the sense of injustice, which excited a desperate resistance to his tyrants, is no longer felt."

There is, undeniably, a great deal of truth in the above presentation of the matter, but there is another side to the question. There are "means of moral control" which are not "proper" in the treatment of the insane, among which is the fear of corporal punishment. When, as sometimes happens, kindness, tact and patience are unavailing, or only encourage the patient to increased lawlessness and violence; when attendants are subjected, day after day, to brutal and unprovoked assaults, endangering not only their comfort but their lives; when they find the order of their wards destroyed, the safety of their inoffensive patients endangered, and themselves subjected to unfavorable criticism on account of disturbances which they see no legitimate way of controlling, the temptation is pretty strong to believe that corporal punishment, although a malum prohibitum, is not a malum in se, and that the principal harm of it lies in the chance of being found out. Attendants well know that the best possible excuses for failure will not be as acceptable to their superiors as success. It is quite possible that others may be held up as examples for their imitation whom they well know to owe their success to the fact that they are less scrupulous about the means of attaining it. Although we are justified in requiring our attendants to do and endure all that may be necessary for the real welfare of their patients, we are not warranted in needlessly leading them into temptation.

My belief that cases of violence to the insane are not by any means always due to the unnecessary use of restraint, and that, on the contrary, the effort to dispense with them may offer temptation to abuse, rests upon facts which have come under my notice, a few of which I will mention.

The most successful attendant that I have ever known in the

management of patients without restraint, and one who enjoyed, so long as she remained in the service, the entire confidence of the officers of the institution, had among her patients a woman who was much given to violence. This disposition was, after a time, pretty well overcome, and the account which the attendant gave to the physician was, that this patient was very proud: that whenever she committed an assault, after her excitement had subsided, she (the attendant) insisted on her asking the forgiveness of the one she had injured, and would give her no rest until she had done so. This humiliated her very much, and in time she came to control her violent temper. After the attendant had left the institution, it was ascertained that she had reduced this patient to subjection by inflicting, after every assault, punishment, not only of a painful but a dangerous character. The fact came out in connection with the detection of another very highly esteemed attendant, who was imitating her example.

A large, powerful Irish woman, who had been for some years in a state of sullen dementia, without showing any tendency to violence, developed a propensity for making unprovoked assaults. She seemed to have a special spite against the attendants, whom she would attack with the most reckless fury whenever they came near her. After this had gone on fer some time, with no amendment, she was transferred to another ward, under the care of an attendant who had shown great enthusiasm and met with excellent success in the work of doing away with restraints. When the patient was placed under her care, she remarked that she hoped it would be possible to manage her without restraint; that she had none on her hall, and did not want any. After the first few days she reported no further trouble so long as she remained in the asylum. Ultimately it was discovered that the attendants on that ward were controlling not only that patient, but others who were troublesome, by measures of very great After the discharge of the offending parties, a woman whom I have every reason to believe kind, faithful and competent was placed in charge. The assaults were at once resumed, and it was then deemed best to put the patient in restraint.

A male general paretic, in a state of violent excitement, was given a special attendant, who was authorized to call on the

other attendants on the ward for help whenever necessary, with the special object of avoiding the necessity of restraint. The patient, although not very pugnacious, was extremely restless, and disposed to struggle against attempts made to control him. After several days of this work the attendant lost his temper and struck his patient. He was not very popular, which may have been one reason why another attendant, who witnessed the assault, promptly reported it. He neither denied the offense, nor the justice of his discharge, but said that he was so nervous from the continued strain of contending with the patient that he lost his self-control.

I do not believe that in either of these cases the misconduct of the attendant was in any way due to the fact that, in exceptional cases, mechanical restraint was still allowed. On the contrary, in the former two, at least, I was pretty well satisfied that the abuses were due, in part, at least, to the determination of the attendants to succeed without them. were well versed and skilled in expedients for employing and diverting their patients; both were general favorites with such patients as were capable of appreciating kindness; I believe both to have been women of a good deal of kindly feeling, but both had, as will generally be found to be the case with attendants who are successful in the management of that class of the insane, a good deal of determination in carrying out any plan which they undertook. I have no reason to suppose that they used any but "proper means of moral control" with patients who were amenable to them.

A patient who came under my care after having been an inmate of an institution in which no mechanical restraints were allowed, informed me that he had been treated there with very great harshness by an attendant who still remained there. Of course, the statements of the insane in regard to such matters are to be taken with some suspicion, but he was competent to tell the truth if so disposed.

It is quite possible that some of my readers may object that such occurrences are evidence of bad management, and are unheard of in the institutions with which they are connected. To such a one I would say, "It may be that in your establishment the attendants are all judicious, humane, and sincere. Still, you will probably admit that some well-meaning men in

charge of the insane have not your capacity for guarding against abuses of all kinds. If you believe that such ability necessarily goes with a disposition to do away with restraint in the treatment of the insane, I can only say, with the classic poet, 'Credat Judeus Apella,' or, in nautical phrase, 'Tell that to the marines.'"

## IV—Comparative Advantages of Mechanical Restraint and its Substitutes.

I have never found any one of practical experience in the treatment of the insane who would denv that there are cases, however rare, in which insane persons can only be kept from mischief by physical obstacles of one sort or another, and, as already said, the alternatives to mechanical restraint in such cases resolve themselves into manual restraint, seclusion and the administration of sedatives. All are, in my opinion, entirely legitimate in their place; the necessity for all will be rare in proportion to the quality of the nursing, and each has, as compared with the others, advantages and drawbacks. All are capable of abuse; all require to be used with discrimination. objection to mechanical restraint, that the necessity for its use may be misrepresented in order to save themselves trouble, is at least equally applicable to seclusion and chemical restraint, and, although it does not lie against manual restraint, there is danger, as intimated above, that still more objectionable measures may be substituted for that. To struggle, for hours at a time, day after day, with a desperate man or woman, who is constantly trying to strike, kick, bite, spitting in your face, loading you with abuse, is rather trying to the mildest disposition. My observation also leads me to think that manual restraint, especially when long continued, is often more irritating to patients, who are apt to feel more resentment against persons than against inanimate objects that interfere with their carrying out their wishes.

Seclusion has the advantage of removing the patient from external sources of irritation, and the serious drawback of interfering with the oversight and influence of attendants, and furnishing nothing to divert the patient's mind from morbid ideas. In my experience, patients who are kept continuously

secluded are likely to be noisy, filthy and destructive. Of course, in cases that are disposed to self-injury, the risk is very great and cannot be entirely obviated even by placing the patient in a state of nudity, in a padded room.

My own opinion, therefore, is that, while in cases of transient excitement either manual restraint or seclusion is preferable to mechanical restraint, the latter has, in most cases, the least disadvantages in cases in which some such measure needs to be applied for a long time.

As to the employment of narcotic and sedative drugs as substitutes for restraint and seclusion, my own observations would lead me to accord it but a very limited field of usefulness. I have not met with such success as some others have reported in obtaining a quieting effect without symptoms of narcotism, and, although I cannot say that I have observed permanent injury from their use, I do not believe that prolonged intoxication of any sort is an indifferent matter. It may as well be understood and admitted that the use of hyoscyamin and hvoscin in the doses in which they are often recommended, in addition to whatever other merits it may have, possesses the advantages and disadvantages of a very severe form of corporal punishment. There are, I think, few patients who have had experience of both, who would not prefer a moderate beating to the distressing sensations produced by a full dose of these drugs.

Although my opinions on this subject have mostly been formed from my own observation and experience, I have not neglected other sources of information. In my visits to other institutions I have tried to acquaint myself with the methods in use there, and have failed to find evidence that they had any secret of which I was ignorant in the management of patients without coercive measures. I have had, as subordinates, quite a number of attendants who have served in institutions in which no mechanical restraint is allowed, and have conversed with them freely in regard to the means which were there adopted to control refractory patients. In cases in which I have deemed restraint advisable, I have sometimes put the question in this way: "Supposing that your own mother or sister were in the condition of this patient, would you prefer to have her restrained as this one is, or managed as you were accustomed to do in your

former situation?" and in every such case they have expressed a preference for restraint. The unbiased opinion of an attendant on this point may not be easy to ascertain, but I doubt if there are any more competent judges than intelligent attendants who have had experience in both methods. They have a more precise knowledge of just how the thing is done than is possible to any one who does not remain constantly with the patients.

For my own part, I do not know of any therapeutic measure which, in my hands, has been of more obvious benefit to patients than the application of mechanical restraints in properly selected cases. If it should ever be my misfortune to be in the condition of some patients whom I have had under my care, I should much prefer that they should be used on me to being trusted without them in the hands of any attendants whom I have ever seen, or expect ever to see.

Note. Since the foregoing was written, a report of the discussion, in the Scotch meeting of the Medico-Psychological Society, of a paper by Dr. Carlyle Johnson on "The Use of Sulphonal," has come under my notice, a few extracts from which may, it seems to me, be instructive in this connection. The observations were made in the Morningside Asylum, conducted by Dr. Clouston, who is one of the most eminent and uncompromising advocates of absolute non-restraint. It appears from the paper that it is customary, at that institution, to give this drug, not only as a hypnotic, but for its sedative effect during the day, for considerable periods of time. Dr. Johnson gives the following account of the effects of its continuous administration:

"In every case where continuous doses were given for periods of more than a few days' duration certain motor symptoms became apparent. These ranged from mild feelings of languor and fatigue to a condition of complete muscular collapse in which the patient could neither walk nor stand erect, nor help himself in any way."

In the discussion, Dr. Clouston said that "There were very few medicines that they would allow even an intelligent nurse to give to patients without special medical orders for each dose. Now, they could allow an intelligent nurse to give twenty-five grains of sulphonal to a patient as the case required." Dr. Clark, agreeing substantially with Dr. Johnson as to the beneficial effects of sulphonal, said:

* * * "It would be difficult to say whether sulphonal shortened the life of paralytic patients. At almost any cost, however, they must save broken bones and obviate other risks."

I do not know Dr. Clark's position on the subject of restraint, and it may not be fair to assume that he would not consider it a possible alternative to a measure that he suspects to be capable of shortening the lives of his patients.

"Dr. Robertson gave an account of a case at Morningside Asylum, to which Dr. Clouston had referred. He said that it was impossible to describe how very troublesome and dangerous that woman was. She was homicidal and very suicidal. These attacks came on quite suddenly, and it was necessary to bring her very quickly under the influence of sulphonal. They sometimes gave sixty grains in the morning and sixty in the evening."

Now, I consider sulphonal a very valuable drug, but I have never pushed it to such an extent as to produce any more noticeable after-effects than a slight drowsiness on the following day. I will not say that it may not be justifiable to produce with it such symptoms as Dr. Johnson describes, but I have no hesitation in saying that, so far as my own feelings are concerned, I would much rather be restrained with wristlets or muff than be reduced to such a condition of imbecility and helplessness. If a drug that is capable of producing such effects is placed in the hands of attendants, with permission to use it according to their own judgment, I cannot see that there is less danger than in the case of mechanical restraint that they may sometimes use it to save themselves trouble, without benefit to their patients.

The impression has got abroad, in some quarters, that the insane are so much more reasonable than the sane, that nothing but an appeal to their higher and nobler feelings is necessary for their successful management.

> "There was an old man who said 'How Shall I flee from this horrible cow? I will sit on the stile And continue to smile, Which will soften the heart of this cow.'"

The truth is, as every one who has had much experience with the insane knows, that there are cases in which, if mechanical restraint is not used, it is necessary to oppose some other equally insuperable obstacle to the insane impulses of our patients. Granting the truth of all that has been said about the liability to abuse of restraints, there is nothing that can be substituted for them which is not liable to abuse. I confess that I cannot quite comprehend the mental attitude of a physician who does not believe that he can control his attendants in the use of a measure that can only be applied with his knowledge and under his direction, and yet has no misgivings as to their discretion and trustworthiness in the use of other means of coercion, the exercise of which must be mostly left to their judgment, and carried on with only occasional supervision.—w. L. w.

# A STUDY OF THE LAWS AND CONDITIONS WHICH GOVERN HUMAN CONDUCT.*

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I take it as granted that all of my hearers accept the postulate that human conduct is subject to law; that man forms a part of the universe, and his conduct, a part of the phenomena of nature. I also take it as granted that you accept the theory of evolution.

A man's conduct is determined by his physical organization, inherited and acquired, acted upon by his environment.

If it were possible to measure and estimate accurately, and in their entirety, these two factors, we could predict with unfailing certainty any one's conduct, even to the expression of the most subtle feelings and emotions. But this, from the nature of things, is beyond possibility.

We know enough, however, to enable us to predict, in a general way, what an individual's conduct will be under certain circumstances. If this were not the case, human society could not exist. This truth is practically recognized by every one, although admitted by but few. In the affairs of trade and commerce, men risk their fortunes upon the probability that various persons will conduct themselves in certain ways which have been predicted.

Capitalists enter into partnership, and invest millions of dollars in steamships to ply between one country and another, upon the supposition that various people will conduct themselves in a certain definite manner respecting this means of travel and method of carrying merchandise. The thousand, and more, of passengers who board one of these floating palaces, and the merchants who place in them their costly goods, do so upon the supposition that the crew will allow themselves to be directed by the captain, and that the captain will direct the crew to take the ship to her destination.

The capitalists and the thousands of people who assist them

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in carrying out their vast enterprises, together with the public at large, all estimate and predict what the conduct will be of the individuals and classes of men who assist in the enterprise.

When the people of this nation choose certain individuals among them to make, interpret and execute the laws that are to govern the conduct of all, in certain numerous respects, they do so upon the assumption that the individuals thus selected will conduct themselves in a manner which has, in a measure, been predetermined.

When, a few years since, the emperors of France and Germany decided to engage the two nations in conflict of war, they did so upon the assumption that the conduct of the people, as a whole, would be in a measure what they predicted, and that the individuals who had been selected to encounter each other upon the field of battle, would act in a very definite manner and strictly in accordance with certain environmental influences, namely, the commands of the officers.

Men and women everywhere, and among all peoples, educate their offspring upon the assumption that, by training and the formation of certain habits, their children will be the better able to adjust themselves to their environment.

In every nation of ancient and modern times the priests, who have administered the rites of the religion of the people, have counted upon the expression of religious emotion by man, and, by taking advantage of this, have maintained themselves as a distinct class in the community.

The insane are deprived of their liberty and confined in hospitals built expressly for them and to subserve their needs, upon the assumption that their conduct cannot be predicted, and that, therefore, they may become dangerous to themselves or others; that they are incapable of adjusting themselves to their environments.

In fact, all of the great affairs of life are conducted upon the assumption that we can predict the conduct of others, in a certain general way, with a good deal of probability.

We will now consider some of the laws and conditions which we have reason to believe govern human conduct. The structure of the organism and the laws of heredity will first occupy our attention.

We are in the habit of considering man as an individual

entity—as standing alone in the world. We must now consider him as the living portion of a perpetual organic existence.

The living ovum forms a portion of the organic structure of the female until it is thrown off. The same is true of the sperm of the male. When these two living bodies join in fecundation they bring with them potential forces which will cause the organism that they conjointly form to undergo a certain definite process of evolution. They bring with them organic matter from the parents which is endowed with life. There is here a continuity of structure and life which stretches back in the past through all historic time, through those ages of barbarism and savagery which preceded it, and through the forms of inferior life to the time when matter first became animate. These living atoms, the ovum and the sperm, bring with them the accumulated experiences and potential forces which they have acquired during these unknown ages.

This is heredity. But heredity does not stop at the time of fecundation. It is continuous with the race. The child inherits the experiences of its infancy, and the man of both. We live only in the present: our life of yesterday is as extinct as it ever will be. We are constantly changing, and the processes of evolution are ever at work. We represent a factor of organic existence which began with the dawn of life, and has become evolved to its present complexity, which is, and is not, dying as time passes, and yet living ever, a mystery unknown and unknowable.

Starting with man at the commencement of his long career of vital existence, at the beginning of the evolution of life, and following him down through the ages, we think we find that the laws of differentiation have been ever at work. One branch became evolved into vegetable life, and the other divided and subdivided, giving rise to all the extinct as well as living forms of animal life. As we draw near the present age we find man assuming more and more his present aspect.

Wherever he appeared, whether in one locality or in many, the environmental influences of climate and topography were at work to cause his differentiation into separate races. We know very well by observation and experience that each race has certain peculiarities of conduct, which are nearly constant, and handed down from generation to generation.

By recognizing and taking advantage of the peculiarities of the people of India, a comparatively few Englishmen have been able to subjugate and control the vast hordes of that country. We all know that race plays a very large part in the conduct of a people and of individuals.

We recognize this fact more readily, and are more willing to admit it, when we consider the conduct of a people, than when we consider the conduct of individuals. The reason for this is that we are better able to see the peculiarities of conduct which are com non to a body of people for generations than we are to see the peculiarities of an individual which are common to him and to his ancestors. It has been generally admitted for some time, by those who have studied the subject, that all of the peculiarities of each parent tend to reappear in the offspring.

Time will not permit me to dwell upon this law, except to point out its bearing upon the subject in hand. The law holds good in respect of the matter of transmission of intellectual, moral and emotional peculiarities, as it does of the transmission of physical peculiarities. Or, rather, the physical peculiarities, or a tendency to their development, being transmitted, the intellectual, moral and emotional peculiarities must necessarily appear, as they are dependent upon physical structure.

In the evolution of a race the most recent modifications of structure are the least stable and most liable to be affected by environment.

Thus, when we know that a race has manifested certain peculiarities of intellectual, moral and emotional conduct for a long time, we do not anticipate that they will be easily changed, and we predict that the individuals will act as their ancestors have acted before them. The longer these tendencies have been manifested by the race, the more confidence do we feel in our predictions.

The peculiarities which have been transmitted for many generations are those which are characteristic of the race; or of a large part of the race, and they are due to the efforts made by the individuals of the successive generations of the race to adjust themselves to their environment. Whatever in the environment tends to modify conduct, and is constant in its operation through many generations, tends to produce corresponding habits of conduct in the race. As each generation

tends to inherit the acquired experiences of the preceding generations, these habits of conduct become more or less fixed, according to the nature of the influence, and the time it has been in operation. A few illustrations will make this plain.

If we examine the history of religious emotion or feeling, as manifested by the human race, we find one constant element, namely, the recognition of something unknown. And as that which is unknown may, and very often does, have power to harm or benefit us, we regard it with awe, or veneration, in proportion as in manifests power to harm or benefit us.

Our remote ancestors, the savages of their time, like those of to-day, saw the lightning shatter the forest trees and kill their companions; they felt the fury of the storm on land and sea; they saw their friends carried over the waterfall and drowned; they felt the earth quake and saw it open and swallow up men and women; they saw the sun disappear and leave them helpless in the darkness to be the prey of wild beasts; and they saw it reappear again in the morning to illumine the way and enable them to defend themselves, or escape from their enemies. In seeking for an explanation of these phenomena, and others of a like nature, they found themselves baffled and so assumed that it was the work of peculiar and unknown beings; their conception of these beings varied according to the nature of the phenomena with which they associated them, and according to the degree of their familiarity with the phenomena. usually attributed to them human attributes, and these they exaggerated to meet the requirements of the case. Thus arose the ideas and practices of propitiation and sacrifice, devotion and devotional exercises.

As the race accumulated experience and became more familiar with the phenomena of nature, they found other ways of explaining some of these phenomena, and their deities diminished in number accordingly.

The expression of religious emotion, and the practices connected with it, have always held a large place in the conduct of the human race. In time man's conception of the unknown became embodied in the idea of one supreme being, but still possessed of human attributes. This is the conception which is most prevalent to-day among civilized people, although those who have the most profound knowledge of nature have eliminated all human attributes from the conception.

To illustrate how persistent are the tendencies acquired through the experience of many generations, let us examine the conduct of those who have become most familiar with the phenomena of nature. Expose such a person to the violence of a storm in a mountain wilderness and watch his conduct. Those conceptions of nature which he had in his laboratory and study cannot be retained in consciousness, and give way to others. He feels a sense of personality in the storm, and the vastness of the wilderness, and the towering mountains, and a sense of insignificance and helplessness on his own part, and as he is overcome by the elements, if a sufficient length of time elapses, he gradually assumes the conceptions and manifests the conduct of a savage. But if he survives, and when the storm passes off, he regains his fellows and his home, his former conceptions of nature return, and he smiles at himself and feels somewhat ashamed at the thought of his having been thus affected. If he is again exposed to the same phenomena he is not so easily affected. But whenever the stress is such as to profoundly affect the nervous system, the religious emotions, and their manifestations, tend to become those of a savage.

If we examine the manifestations of religious emotion as exhibited among the insane, we find illustrations of this law. We observe in most cases of insanity that the first indications of the disease are perversions or alterations of the most elaborate mental processes, of those qualities of mind which mark the individual's highest attainments. The most elaborate and highly developed portions of the nervous system tend to degenerate first, and, as the reductions proceed to total dementia, we see a gradual loss of all those thought feelings and emotions which mark a civilized man, and those of the brute appear, until, finally, nothing remains but the vegetative functions of life.

In studying the evolution of an individual from infancy to adult life we find that the same law applies. At birth the vegetative functions predominate, and during childhood a peculiar fear is felt on exposure to peculiar phenomena. Strange people, strange sounds, silence, darkness, &c., cause terror, and are regarded as having a sort of personality. The hobgoblins and fairies are real. The toys and inanimate objects which chance to annoy and cause pain, are chastised and treated as though they were personalities. All this gradually disappears,

in a measure, but a tendency to this conduct always remains. It is not manifested except under peculiar circumstances of stress, and among intelligent people is usually restrained or inhibited. We have all seen people condemn and throw to the ground the knife with which they have chanced to cut themselves, abuse the time-piece which has caused them to miss an important engagement, and execrate the circumstances which have caused them to lose they property. All of these acts are afterwards regarded as foolish, and give rise to a sense of shame. They indicate that the habits of conduct most recently acquired by the race are the least stable, and that under stress they give way and are superseded, for the time being, by conduct more stable, because longer participated in by the race.

Let us now examine ethical conduct and see how far it is determined by inheritance.

We will commence with our ancestors, the savages of prehistoric times. We have every reason to believe that they resembled the savages of to-day in their moral conduct as in other respects. We know that the least civilized races live in small tribes, consisting of but a few members, intimately related, and that much of their time is spent alone in the chase. gregarious instinct is but slightly developed.

Low cunning, love of conflict and revenge, with absence, or slight development, of a sense of justice and personal right, are the chief characteristics of these peoples. I need not point out that when we go among them, we do not expect to find them acting in any other way than this. Their conduct is dominated by their inherited tendencies.

As the evolution of the race goes on, and the gregarious instinct becomes developed, they gather into larger tribes, and their ethical conduct becomes modified. Some sense of justice and personal right is manifested. The stronger in the community is able to enforce his will and to command obedience. Habits of living become more or less fixed, and ethical relations are maintained by custom. These customs are modified from time to time as the tribe increases in number and its abode becomes more permanent. Intercourse with other tribes, war and conquest modify these customs still further. When fixed communities are formed with permanent habitations, come of these customs become laws, and a nation is formed. Internal

commerce, social intercourse, and association for protection against the aggressions of foreign foes cause still other modifications. Foreign commerce, war and conquest produce their results, and finally, we reach our own time and ethical standard.

I need not remind you how fixed have become our laws and ethical customs, not only as manifested between individuals, but between communities, and even nations.

Ethics has even become a science, with many branches, which are taught in our institutions of learning, and thus acquired by each generation.

And right here I wish to point out that the explanation for the rapid advance which is being made in civilization at the present time is due to the modifications of structure occasioned by the educational element of our environment.

Habits of thought, feeling and emotion are systematically taught and acquired, and the memory stored with facts, while a vast array of accumulated experience with the phenomena of the universe lies stored in books for reference, all of which modifies, in a marked degree, the manner in which man adjusts himself to his environment.

The ethical conduct of the insane claims our consideration. As previously explained, the most recently developed portions of the nervous system tend to give way first under stress, and, consequently, those habits of conduct most recently acquired are, as a rule, the ones first to be altered, perverted, inhibited, or superseded by those acquired from the earlier experiences of the race.

We should therefore expect to find the ethical conduct of the insane resembling somewhat that of the race during some portion of its past history. As a matter of fact this is what we do find. The degenerative changes in the nervous system do not take place in exactly the same order as the constructive changes did, and the nervous system, as a whole, has been modified by the recent changes, and, further, the environmental conditions have changed also. These facts account for the irregularities in the reductions of insanity. Owing to the length to which this paper has already grown I shall refrain from mentioning illustrations of these principles.

If we consider conduct as manifested in our social relations, in war and conquest, in marriage and the relations of the sexes

and the ties of kindred, in education, in dress and adornment, and in the arts, manufactures and sciences, we find that the same laws of heredity apply.

We will now consider how, or in what manner, the environment ment modifies and controls conduct. The environment limits human conduct to the range of man's ability to overcome the resistance which the environment presents, or, in other words, human conduct is the result of the reactions taking place between the forces of the organism as a whole, and those of the environment; it is the result of the effort made on the part of the organism to adjust itself to its environment. This proposition requires no demonstration. It is a self-evident truth.

The forces of the environment to which we attempt to adjust the forces of the organism are practically infinite in the variety of their manifestation. We can only study them as observed in groups of phenomena. Those which influence us most are connected with climate, topography, and animal and vegetable life.

Climate modifies our customs in regard to dress and adornment; the character of our dwellings, public buildings and edifices, our methods of travel and means of conveyance, our use of artificial heat in cooking and in maintaining the temperature of our dwellings. It influences us in the selection of our diet, in our habits of exercise and industry, both physical and It influences and modifies the gregarious intellectual. instinct in man. It modifies our social, domestic and family habits and customs, our manner of conducting war and our selection of the season for undertaking it, our religious emotions and devotional exercises, commerce and the arts and sciences. It would require a volume to state properly the modifications of conduct which are due to climate. And the same holds good in respect of topography and animal and vegetable life.

#### To CONCLUDE:

The environment modifies conduct.

Where the influence of the environment is persistent, habits of conduct are formed. Modifications of structure result. By heredity these are transmitted from generation to generation, and are always undergoing changes produced by the environment.

### THREE CLINICAL CASES.

BY C. K. CLARKE, M. D., Medical Superintendent, Asylum for Insane, Kingston, Ontario

It is a safe rule in asylum practice to regard the majority of cases of insanity of two years standing as incurable. Still we are occasionally gratified at the recovery of patients who were apparently beyond all hope. It is also an accepted fact that well defined and persistent hallucinations are apt to indicate organic lesions that preclude not only the hope of recovery, but even of improvement.

Under the circumstances it is well to record recoveries showing that the usual course of events is sometimes deviated from in a remarkable manner. The following is a case in point; and it is certainly very instructive:

Case I. T. W., male, et. 34, was admitted to Kingston Asylum on the 25th of February, 1884. He had been married but three months when a lmitted. The history of his case was meagre, but we learned that a few years before his attack he had received an injury to his head (apparently a scalp wound) and it was suggested that he had suffered from sunstroke, although there was nothing adduced to prove that this theory was correct. It seems that the patient had been mining in the West, had made some money, and returned to Canada. He became involved in a financial transaction, and this was supposed to be the exciting cause of the mental trouble.

The insanity dated but a short time (six weeks) before admission to the asylum. The condition of the patient when admitted was that of deep melancholia; was full of fears that people wished to do him harm and was suicidal. For two or three days after his admission he talked of his condition; then refused to speak. This refusal to speak was the commencement of a remarkable period of silence.

#### NOTES.

March 13th, 1884. W. inclined to be very gloomy and melancholy; making no improvement.

April 8th, 1884. In an unsatisfactory condition, refuses to speak, and is not nearly as well as when admitted.

April 15th, 1884. No improvement. Is very melancholy.

May 12th, 1884. No change.

June 9th, 1884. Melancholia still persists. Patient appears to be losing flesh.

September 19th, 1884. Quiet and stupid.

October 9th, 1884. Has been working in the fields of late. About this time a change took place in the patient's general condition. He began to take an interest in his surroundings; was brighter generally, although at times was in deep melancholia. He persistently refused to speak.

April 9th, 1885. Does not yet speak, but by means of nods and signs tells us that he is getting better; wishes us to understand that he is not able to talk, but would like to go home.

During 1885 he appeared to be at a standstill mentally; at times bright—then again depressed.

February 2d, 1886. Appears to be in fair bodily health, but will not speak to any one. Has a more cheerful expression when spoken to.

In 1886 he brightened up a greal deal, and by 1887 had become as useful as an attendant in the wards, and ordinarily was bright and cheerful, but occasionally had periods of depression. Undoubtedly had hallucinations and delusions, and, as a result of these, did not wish to go out of the house. He would not say what these were, and still refuse to speak, but eventually it was necessary to use force to get him out of the asylum for exercise. When outside he made no further resistance, and always went out after this without trouble.

February 14th, 1888. Still refuses to speak, and is about as usual.

May 24th, 1888. In a letter written to his wife a day or two ago, he revealed the fact that he is suffering from hallucinations. He wrote as if something came into his room at night. This he can see distinctly, but manages to drive away. This "something" is written about in an indefinite manner; but without doubt he has hallucinations of sight.

March, 1889. W. will not speak yet, although he is wonderfully bright and cheerful. The periods of depression are gradually disappearing, and the patient is better, although he

has marked delusions and hallucinations as shown by his letters. He is a man of great intelligence, and in certain directions has marked ability. Is fond of working mathematical problems and puzzles, and it is said in the ward that if W. cannot get a puzzle right no one else need attempt it. Has a habit of walking about and laughing to himself a great deal, and at night is to be heard laughing in his room.

When walking will frequently strike strange attitudes, and clasp his hands above his head. When aroused is passionate, and, although of gentle temperament, becomes white with passion at times. Whatever he does he does well; and is enthusiastic. Has learned to weave rag carpets; and although he dislikes going to the loom-room, on account of a patient who uses very backlanguage, still he goes as a matter of duty, thinking that it pleases me. The rag carpet made by him is excellent.

October, 1890. There is decided improvement in this patient. He has written me a letter to the effect that he is gradually recovering, and is certain that he will be able to speak before long and explain his condition. The letter is couched in the most polite language, and the fact is apparent that a marked change for the better is taking place. No time is set for the breaking of silence.

December 10th, 1890. Owing to an outbreak of diphtheria in my family, we have been forced to move to the City of Kingston. When I went home from the asylum yesterday Mrs. Clarke remarked to me, "What a bright and intelligent patient that was who has been helping us to put down carpets to-day." I asked her to give me the patient's name, and she described W. She said he had been talking to her all day. I thought she must be mistaken in regard to the patient, especially as W. had not spoken when he returned to the asylum.

December 11th, 1890. Refused to speak to Mrs. Clarke when at the house to-day, but one of the children, who seemed interested in the fact that he would not talk, finally induced him to carry on a conversation.

December 13th, 1890. W.'s wife came to see him to-day, and he spoke to her; in fact talked quite freely. He did not seem to be able to explain why he had spoken, or to tell why he had not spoken sooner. Appears to be quite rational.

December 14th, 1890. I had a long conversation with W.

to-day, and his condition is remarkable, in view of the fact that he has been so clearly insane for seven years. He is not only rational, and apparently sane, but gives a clear and concise account of his mental trouble. Of course I am sceptical in regard to the permanency of the present condition, but there is no disguising the fact that, for the time being, W. is well mentally. He says that about a year before he entered the asylum he received an injury on the back of the head, and dated his trouble from this time. A few months later he heard voices telling him that if he spoke he would be killed. He felt that something like an immense cloud was hanging over him, and if he spoke this would fall and instantly destroy him. At night too he saw dark forms that looked like snakes. He tried to fight against them, but became bewildered and confused, and eventually gave up the struggle and obeyed the voices. The voices were in whispers, and said nothing else beyond the statement that he would be killed if he spoke. Gradually the voices faded away, and he did not hear them for nearly a year before he spoke. The snakes were not seen for about six months before he talked. Complains that his throat feels sore, as the result of using his voice.

December 14th, 1890. I am not altogether sure of my ground in this case, although it is impossible to detect the slightest evidence of mental defect in the patient. I hope that the recovery is real, and certainly we seem justified in allowing the patient to return to his home on probation.

December 15th, 1890. Has to-day been given two months probation.

February 21st, 1891. Has been written off our books as discharged recovered. W: has remained quite well, both physically and mentally, and there is no doubt the recovery is real.

March, 1892. W. has now been home for fifteen months, and his friends state that he has never been as competent mentally as at present. He is managing his business affairs and doing well.

This is a satisfactory ending to a remarkable case.

The possibility of organic lesion, as a result of the blow on the head, has suggested itself as the cause of the trouble, although the method of removal, and reason for improvement are not altogether clear. If this case was really the result of organic lesion, and the history had been clear, what an opportunity for a cure by surgical interference would have been presented.

The lessons taught by this instructive case are self evident.

Case II.—Cases of puerperal mania occurring in connection with eclampsia are comparatively rare.

Dr. Blumer, of Utica, has, I believe, compiled some statistics regarding this complication.

The following case is of interest:

M. A. H., aged thirty-eight. Was first seen in her own home, where I went with Dr. Anglin, who had asked me to see the patient with him. On the way to the house, the doctor said that the patient, who had been confined the day before, was maniacal, and in a critical condition. The condition was, as the doctor said, critical, and when we arrived the woman was unconscious. The temperature was slightly over 104, pulse 140, and of wretched quality. The arms and legs were twitching, and the general appearance suggested uræmia. Although there had been no history that would lead one to suspect albuminuria, the urine was at once examined, and found almost solid with albumen. The patient had many convulsions, and, when not unconscious, was wildly excited, but the condition suggested delirium rather than mania.

Dr. Anglin was positive though that the mania was quite evident before the uræmic convulsions were present. For several days the temperature remained elevated, and the excitement continued, but the albumen rapidly disappeared from the urine. When this had happened the mania made itself apparent in a marked manner, and asylum treatment became necessary.

Mrs. H. was admitted to the Kingston Asylum on December 1st, 1891; her history showed neurotic tendencies on the part of the members of the family. One brother was insane for a short time, but made a good recovery. When admitted was quiet, and when examined was found to have elevated temperature, 103° F., and quick pulse, 120. She had been taking large doses of chloral. Became extremely restless in a short time, and was frequently sponged. Took her nourishment very well, and it was found advisable to give stimulants freely. Tongue was coated and dry.

The mania was of peculiar type. For hours the patient would be able to converse freely regarding herself, and would explain that she dreaded the approach of the attacks, when she knew that she would lose control of herself.

When these attacks occurred, as they did every day, the unfortunate woman was in the wildest delirium, full of delusions, and apparently unable to control herself in any way.

On December 5th, her temperature was 101 4-5° F., and her pulse 140, and, as there was refusal to take nourishment, artificial feeding had to be resorted to. Sulphonal was given regularly, but little rest was secured.

On December 6th, was quieter, and a little better, although temperature had gone up to 102 3-5.

December 7th. Was again excited.

December 8th. Excited.

December 9th. Excited, and seemed to be doing so badly that it was determined to try baths at 105° F., with cold to the head.

The first bath was given on December 10th, and continued for twenty minutes. The result was satisfactory, and the patient rested quietly and slept for several hours.

December 11th. Bath repeated and continued twenty minutes. Patient perspired freely afterwards, and, although she did not quiet down at once, eventually obtained a few hours' sleep. Temperature 100; pulse 120.

December 12th. Restless all day; did not have a hot bath.

December 13th. Two hot baths given to-day with the most satisfactory results. Temperature 100; pulse 94.

December 14th. Restless all day. Bath given in evening. Slept afterwards.

December 15th: Decidedly better. Sleeping and eating well. Temperature 99 3-5 F.; pulse 99. Hot bath thirty minutes.

Improvement continued from this time, and on the 20th the last hot bath was given. On December 21st, the temperature was normal—pulse 74, and patient quite rational. She was very anxious to sleep a great deal, and was permitted to indulge her desire.

On January 11th, 1892, was discharged on probation, quite recovered.

CASE III.—In a recent issue of the JOURNAL OF INSANITY, I published an account of a Case of Lethargy. Dr. Wesley Mills, of McGill University, has placed at my disposal notes by Dr. Robinson, of Annapolis, on a patient who hibernates in an extraordinary manner. Many points of similarity between my Case of Lethargy and this man are to be found, such as neurotic family history, sub-normal temperature, &c. It is a pity that more extended notes are not to be had, as the case is unique.

Notes by Augustus Robinson, of Annapolis, N. S., on a remarkable Case of Lethargy.

John T., son of a pensioner, is now about sixty-two years old. When he was twenty-eight years of age his father committed suicide by cutting his throat in a fit of insanity. Before his father's death, John had shown symptoms of melanchelia. He would sit by the hour over his father's bench (cobbler's), laughing and talking to himself, and working himself into a frenzy, fighting imaginary foes, and going into immoderate fits of laughter.

I cannot ascertain, after much enquiry, how long this condition of things lasted before he lapsed into his present state; but this much is certain, for the last thirty years or more, about the end of September every year he falls into a deep sleep or stupor, and, as his present condition is a fair sample of the manner in which his winters have been passed since he was first attacked, I will describe him as I found him on Monday, December 10th, 1888, and repeat what I was told by his friends regarding his attack this autumn:

About August 31st, Jack went to bed after eating his evening meal as usual, without exhibiting anything out of the common in his manner or otherwise, or giving any reason for the supposition that he was out of sorts in any way. On the following morning he did not get up, nor has he shown any more vitality than any sleeping man up to this time. His sleep is very quiet without any stertor, indeed it is as calm as that of a child. Twice in every twenty-four hours he is taken up, a person supporting him on each side, holding a vessel for his convenience. He knows enough to voluntarily empty his bladder. The urine is high in color and scant in quantity. About eleven o'clock every night he seems to show rather more life than at any other time, and advantage is taken of this to

pour a little thin oatmeal gruel, beef-tea or soup down his throat, he opening his lips to allow them to do so, and slowly swallowing it. He only takes a very little each time, and, if urged to take more, simply keeps his mouth shut. About once in every thirty days, not exactly at regular intervals, during the evening generally, the family will hear a peculiar chattering noise. They never take any notice of it, for they know it is Jack going down to the out-house to empty his bowels. He then returns to his bed and sleeps. He knows enough to throw a quilt over his shoulders at such times.

At the time of my visit I found his temperature 96° F. pulse 60, regular, though not strong; respirations 14, easy and quiet, skin cool. A pin stuck into his arm caused no apparent change, and he might be pinched until black and blue without its causing him the slightest uneasiness.

My first visit to Jack was about twenty years ago, when I first came to live and practice in this vicinity, and it came about in this way. Of course there was a talk about the new doctor and what he could do, so I was called to see this queer case. I got all the particulars from the friends and neighbors, and what means had been tried by other doctors, and then I promised to try what I could do. On the following day I went again, accompanied by my brother, also a physician. We took with us a good galvanic battery. One of the handles was placed in each hand and bound closely to the fingers with wet bandages. Wethen put on the full power of the instrument. Poor old Jack was out of bed in one instant, and I shall never forget his look of astonishment and horror as he yelled out "Dumnation, what's that?" I can also well remember my own feelings of satisfaction and complacency when the natives congratulated me on my success in this, my first case. I walked off as if saving to myself, "I knew I could do it." Well, Jack remained awake about three days and then I got a message that my patient was off again. I went up and tried the battery a second time, with only the effect, however, of making him open his eyes and grunt out "Eh," in a querulous manner, and, after looking about him for a half-hour or so, he lapsed into his former condition. Next day I again tried the battery, but without the slightest effect, so I gave it up as a hard case.

This is all I have to say about this singular object, except that,

of course, he becomes very thin and haggard before he rouses finally in the spring and he does not fairly waken until the end of May or first of June. During the summer months Jack does exactly the work he is told to do, but he must be told over again every day; for example, if desired to bring the cows from pasture, he will do so, but will not milk them until told to, nor will be turn them afield again without being desired. He does not seem to know what to do next, even though the same routine is carried out every day. An exception, however, must be made in one respect. He does not require to be told when dinner or tea-time arrives, and is blessed with an excellent appetite. Jack is always ready for his hash, and is not particular about quality, so that quantity is there. He will talk quite rationally on any subject when spoken to, and recollects distinctly most of the incidents of his childhood. He will hold animated confab with the cows, dogs, trees, wheelbarrow, or any other object which happens to be in his way, and may be noticed sometimes lecturing a tree for some time, breaking out occasionally into uproarious fits of laughter.

#### ABSTRACTS AND EXTRACTS.

Poisoning by Hyoscine. - Dr. Adler, of Breslau, publishes particulars of a case (quoted in Lancet, February 6, 1892.) of poisoning by hyoscine. A man employed in the chemical laboratory used a glass for drinking purposes which contained a deposit of hydro-chlorate of hyoscine. In a quarter of an hour he was attacked with vertigo, and gradually became unconscious. An hour and a quarter after taking the poison he was seized with convulsions, and rapidly became comatose. Upon arrival at the hospital he was found to be suffering from trismus, with occasional clonic spasm of the muscles of the lower jaw and of the limbs. The stomach was washed out, but no traces of hyoscine were found in the fluid withdrawn. Two centigrammes of morphia were immediately given hypodermically, after which the convulsions ceased, but the rigidity lasted until five o'clock in the evening. injection of one centigramme of pilocarpine was then given, but the effect of it was not apparent until three o'clock next morning, when the coma had given way to a drowsy condition and the pulse had dropped to 104. At 5 A. M. the patient was able to answer questions. He, however, became extremely restless and excited. He was put under the effect of chloroform, and in a quarter of an hour he slept quietly. On waking he complained of great weakness, his gait was uncertain, and his pupils widely dilated. His urine contained hyoscine. He eventually entirely recovered. J. M. M.

FATAL CASE OF HEPATIC ABSCESS CAUSED BY THE PRESENCE OF A NEEDLE, -Mr. J. Peeke Richards, Medical Superintendent of the Female Department of the London County Asylum, Hanwell, reports this case in the Lancet, January 23, 1892. The patient, a case of chronic melancholia, inserted a needle in her chest, presumably actuated by an aural hallucination. Her temperature arose on the following day, and ten days later reached 104°. Fluctuation was then perceptible in the left hypochondriac region, and the abscess was opened. She rallied for a few days, then failed and died twenty days after the needle was inserted. At the autopsy the needle was found imbedded in the left lobe of the liver, the blunt end on a level with the upper The liver weighed 87 oz., the left lobe 294 oz. The surface of the organ. left lobe was occupied by innumerable abscesses, from the size of a pea to that of a walnut. There was a large abscess cavity over the left lower ribs in the mammary region, and in the fifth intercostal space was a minute aperture communicating with an abscess the size of an orange, situated between the under surface of the ribs and the upper surface of the left lobe of the liver, and communicating through the diaphragm with the abscesses in the liver. The upper part of the left pleura contained a large quantity of clear fluid, which had considerably compressed the lung. The lower portion of the pleural cavity had become obliterated by the adhesion of its costal and parietal pleuræ. The pericardium contained about three ounces of clear .fluid. J. M. M.

PROPHYLAXIS OF INHERITED INEBRIETY, -Mr. James Stewart read a paper upon this subject (Lancet, January 9, 1892,) at the quarterly meeting of the London Society for the Study of Incoriety, concluding with the following summary of his views: 1. Drunkenness is a vice, inebriety a disease; the two terms must not be confounded. 2. The disease of inebriety once established may be transmitted to the patients' offspring either in the form of the alcoholic diathesis, epilepsy, chorea, insanity, or even tendency to crime. 3. The child of an inebriate born after the functional or structural lesion has been established is sure to inherit some nervous diathesis. 4. The only security against this diathesis developing as inebriety is by life-long total abstinence on the part of the child. 5. Even the adoption of this precaution will not absolutely make certain that there will be no transmission of the cachexia by the child to his or her offspring. 6. To prevent the development of the alcoholic neurosis in other directions-such as epilepsy-sudden excitement of the emotions and sensibilities, such as might be produced by corporal punishment by strangers, should in all cases be guarded against. 7. In the prophylaxis of inebriety the principle to be acted on with regard to children's training is that if we accentuate the good we attenuate the evil. 8. The marriage of the child or even grandchild of an inebriate to a first cousin should be absolutely interdicted. J. M. M.

CONVULSIONS TREATED BY COMPRESSION OF THE CAROTID. - Dr. Leopold Roheim, of Budapest, publishes in the Gyógyászat a case of eclampsia successfully treated by this method. The case, which is quoted by the Pester Medicinisch-Chirurgische Presse and the Lancet, was that of a robust man of fifty-six who had been suffering for years from cancer of the bladder with occasional hæmaturia. He had been attacked by a most violent eclamptic paroxysm, which was mainly confined to the left side. After failing with all ordinary remedies, Dr. Roheim compressed the right carotid with the index and second finger between the larvnx and sterno-cleido-mastoid muscle backwards toward the spine, as recommended by Trousseau and Bland. The convulsions were arrested, and two or three ensuing lighter attacks were controlled by the same procedure. He was equally successful in the case of a girl nine years old. He considers that by compression of the carotid, and at the same time necessarily the sympathetic nerve fibres, which closely follow the course of the artery, the excitability of the brain is allayed. J. M. M.

DEATH BY HANGING.—The St. Petersburger Medicinische Wochenschrift (quoted in Lancet, February 13, 1892.) gives a résumé of a paper by A. S. Ignatovski on the cause of death by hanging. He refers the rapid loss of consciousness after suspension to the retarded or arrested circulation in the brain brought about by the increased intra-cranial blood pressure. The effect of this impediment to the circulation is the same as in cerebral anæmia, for in both the nutrition of the brain suffers. It is, therefore, not, as Leofman teaches, an insufficient supply of blood to the brain, due to compression of the carotids, which interferes with the functional activity of the brain, but com-

pression of the capillaries by increase of the intra-cranial pressure, which has this effect, and which occurs whilst the supply of blood remains the same, or even increases.

J. M. M.

Hæmatoma Auris,—Dr. Tishkoff (quoted in Lancet, February 13, 1892,) has examined and reported upon ten cases of hæmatoma auris occurring in patients suffering from general paralysis, in which disease it differs both clinically and pathologically from other forms of hæmatoma attacking the ear. Hæmatoma auris is due to the exposure of the cartilage of the ear to external influences, rendering it susceptible to morbid changes. mences with inflammation of the perichondrium, which is followed by absorption of the cartilage caused by the formation of new blood-vessels. The rupture of these vessels creates a cavity between the perichondrium and the cartilage, which increases as the flow of blood continues. The characteristic form of the hæmatôma is caused by the cavity between the cartilage and perichondrium. The blood is slowly absorbed, and the thickness of the walls of the cavity is augmented by a new growth of connective tissue. The exciting cause in the insane is generally maniacal excitement; in the healthy it is always traumatic. J. M. M.

SULPHONAL.—In a lecture delivered at the Congress of German Neurologists, in Baden, June, 18:1, Dr. Gilbert, of Baden Baden, describes (Lancet, February 20, 1892,) four cases which were treated in the Sanitarium there. Two of the patients were under treatment for the sulphonal habit, as it had become a perfect mania, so much so that the absence of it caused symptoms similar to those experienced when overcoming the morphia habit. This was not the case with the other two, but serious symptoms were evident. Besides the well-known injurious effects produced by the use of sulphonal, all the four patients were unable to write straightly and distinctly. The characters were unsteady, and in an ascending line from left to right. Attention is called to the fact that, although the effects of sulphonal are well known, still it is used as freely as ever. In Germany it can even be obtained at chemists' shops without medical prescription. In conclusion, when the use of this drug seems unavoidable, it is recommended that it should be prepared as follows: Boiling water is poured on the dose of sulphonal and the mixture is cooled by constant stirring until it is just palatable. By this means precipitation is nearly avoided, and the drug enters the stomach in a dissolved form. Thus sleep is said to be generally produced in from fifteen to twenty minutes, and the troublesome feeling of weariness, enervation, &c., usually experienced by the patient on the day following the use of sulphonal does not appear.

-Dr. J. Carlyle Johnstone, in the Journal of Mental Science, January, 1892, reports the results of the use of sulphonal in fifty unselected cases. The effects of the drug upon the patients are noted as it was administered in single doses, interrupted doses, and continuous doses. Very considerable difference in the individual reaction to the drug was experienced, ten or fifteen grains acting as an efficient hypnotic in some cases, and thirty or forty being

required in others. Between thirty and forty grains was found to be the most suitable average dose. Interrupted doses were administered at intervals of at least forty-eight hours. After a few days' treatment, the period varying according to the dose, the peculiarities of the case and individual idiosvnerasy, the action of the drug almost invariably tended to become more prolonged, so that the effects of one dose had barely passed off when the next dose was given. When the patient was brought well under the influence of the drug the difference in the amount of sleep between the sulphonal-nights and the non-sulphonal-nights was generally slight. After several doses had been given, drowsiness during the day became more frequent, and was always present to a greater or less extent after prolonged treatment. With repeated interrupted doses a gradual, generally prolonged, and frequently permanent improvement in the mental condition occurred, characterized by a marked diminution in the excitement, the irritability, the motor restlessness, and the wretchedness. In no case did sulphonal fail to effect at one time or another some beneficial influence on the mental state.

In twenty cases sulphonal was given in doses repeated on consecutive days. or two or three times a day, the largest quantity in one day being sixty grains. and the smallest ten grains. The total quantity given in this way ranged from forty grains spread over two days to several ounces extending over a period of two or three months. The phenomena which followed the use of continuous doses were the same in kind, but more pronounced than those appearing after the administration of interrupted doses. After a few days' continuous treatment the patient invariably began to sleep better. Sleep came on sooner and lasted longer, and tended to become heavier in character. The awakening began to be accompanied by a feeling of mild confusion, and drowsiness during the day time set in and became more pronounced. It was not unusual for a bad case of insomnia when well under the influence of the drug to sleep for ten hours regularly every night for several weeks. On pushing the drug further the condition became one of almost continual somnolence. the whole night being spent in unbroken sleep and the day in fitful slumber. In no case did the prolonged use of the drug appear to diminish its potency. In every case where continuous doses were given for periods of more than a few days' duration, certain motor symptoms became apparent. These ranged from mild feelings of languor and fatigue up to a condition of complete muscular collapse, in which the patient could neither walk, nor stand erect, nor help himself in any way.

Dr. Johnstone's conclusions are briefly summed up as follows: In properly regulated doses sulphonal is an efficient hypnotic, and, compared with other hypnotics, its action is fairly certain and constant. The sleep produced by it is natural and tranquil and undisturbed by dreams. It has no injurious effect on the circulation, respiration, appetite, digestion, or temperature, or on the general health. After a time it may be discontinued or the dose reduced, the patient continuing to sleep well.

It has a distinct sedative action in mental excitement or distress, and may be employed with great benefit in cases of insanity, especially in such as are of a recent or acute character.

Its chief disadvantages are the slowness of its action and the tendency of

the action to be prolonged into the succeeding day, and to be followed by drowsiness, confusion, giddiness, or fatigue, and the serious cerebral and motor symptoms which are apt to follow repeated doses.

J. M. M.

Treatment of Status Epilepticus.—The St. Petersburger Med. Wochenschrift, (quoted in The Lancet, February 20, 1892.) publishes an account of a method of treating the so-called "Status Epilepticus," which has been successfully adopted by Dr. Kernig. He gives the following particulars of a case treated by this method: A girl in the Obuchoff Hospital in St. Petersburg, after suffering a whole night from almost continuous epileptic convulsions, next morning was unconscious, but without any cedema of the lungs, and with a fairly good pulse. On the convulsions being renewed a hypodermic injection of 0.02 gramme of hydrochlorate of pilocarpine was given, and 1.5 grammes of camphor in an emulsion. Profuse perspiration followed, and the convulsions immediately ceased, but for an hour pulmonary cedema and collapse seemed imminent. These symptoms, however, passed off, and were followed by sound sleep and a good pulse. The patient was made to lie on her side to prevent annoyance from the excessive secretion of saliva.

J. M. M.

CEREBRAL TUMOR RESULTING FROM APOPLEXY. - Dr. J. A. Campbell reports in the Lancet for February 13, 1892, a case of tumor of the brain the result of an apoplexy. The patient, long resident at the Carlisle Asylum, had a paralytic seizure with slight loss of power of right side; followed, a few days afterwards, by a convulsion and increase of paralysis. remained helpless, but the leg shortly regained power. He was reported to have had slight convulsive attacks at night, failed rapidly, and arm and leg dwindled. He became suddenly comatose, and died three months after the first attack. The diagnosis of apoplexy was favored from the suddenness of the initial seizure, the partial recoveries of power which took place in the implicated members, the absence of the train of mental phenomena usually witnessed with growing tumor, and the character of the final and fatal seizure. The post-mortem examination revealed a tumor the size of an orange in the right (?) hemisphere. Dr. Coats examined the microscopic structure of the tumor, and expressed the opinion that it had been a large blood-clot which was undergoing the process of organization. After the blood has coagulated there is first a penetration and replacement of it by round cells and bloodvessels. After this the round cells elongate and spindle cells are produced. The process extends from without inwards. It is very unusual for a coagulation to undergo this process in the brain, but it is also very unusual for a patient to survive after such a large hemorrhage as this must have been.

J. M. M.

The Therapeutic Application of Hypnotism.—The following are the conclusions of a paper by Dr. Tockasky, of Moscow, which was read before the Congress of Hypnology, as given in the *Jour. de Méd. de Paris*, No. 1, 1892:

- 1. The hypnotic condition and suggestion are therapeutic agents of great value.
- 2. The hypnotic condition and suggestion can only be effective in diseases susceptible of cure, and it is necessary to take care not to employ hypnotism in cases where organic lesions exist. The use of hypnotism can only be indicated in subjects that are recognized as suitable to be affected by it, for there are no means existing, at present, by which all subjects can be rendered susceptible to its action.
- 3. Inasmuch as we do not possess the means of determining in advance the degree of hypnotic susceptibility of different individuals, this can only be settled by the first hypnotization.
- 4. Hypnotism is especially indicated in functional troubles of the nervous system, since, where no material lesion exists, the reëstablishment of function is possible. It may be considered in such cases as a radical curative agent.
- 5. Hypnotism gives also good results in local lesions where disorders of nutrition are caused by a disturbance of the functions of the nervous system.
- 6. Hypnotism, we repeat, remains without effect against morbid manifestations, resulting from destruction of tissue; nevertheless, when, aside from the symptoms caused by the organic lesions, there are others connected with the disturbance of the nervous functions, it is possible by hypnotism to cause these latter to disappear. It is in this way that we can explain the cure of certain symptoms, apparently due to an organic lesion, which were simply the superadded functional disturbances.
- 7. Aside from the cases above mentioned, hypnotism may be usefully employed to combat certain isolated symptoms, such as pain, insomnia, etc.

н. м. в.

DISORDERS OF EQUILIBRATION FROM TUMORS OF THE FRONTAL LOBES.—Bruns, Deutsche Med. Wochenschr., No. 7, 1892, (abstr. in Rev. Gén. de Méd., March 9,) basing himself on four clinical observations, followed by autopsies, endeavors to show that tumors of the frontal lobes of the cerebral hemispheres frequently cause disorders of equilibration absolutely identical with those observed in cases of lesions of the cerebellum. Such disorders are much less frequently observed from tumors occupying other portions of the cerebrum and they are very seldom found with those occupying the Rolandic region.

The accompanying symptoms almost always permit a diagnosis of the seat of the lesion, that is to distinguish the ataxia due to the tumors of the frontal lobe from cerebellar ataxia.

H. M. B.

The Influence of Single Attacks of Epilepsy on the Temperature.— MM. Mairet and Bosc, Nouv. Montpellier Méd., January, 1892, (abstract in Rév. Gén. de Méd.,) observed that in isolated epileptic attacks the temperature is not modified before the onset. In the convulsive period the temperature is sometimes a little lowered and sometimes slightly increased, the difference apparently depending on the degree of severity of the convulsions. In the period of stertor, there is, in the great majority of cases, some molification.

The temperature is lowered, if it is calmed, and increased if it is accompanied with agitation. The same remark applies for the following period of somnolence.

On the waking, the temperature has the tendency to approach the normal. It may be observed, nevertheless, if it has been lowered, it may remain slightly lower during the day or it may slightly exceed the normal temperature; if it has been increased it does not fall quite to the normal point but remains a little higher.

H. M. B.

Thymacetine.—This substance obtained by a German chemist, Hoffman, of Leipsig, is to thymol what phenacetine is to phenol. Dr. F. Jolly, professor of psychiatry and neurology in the Berlin Medical Faculty, who has tried thymacetine in certain nervous and mental diseases, finds that the drug possesses decided analgesic and hypnotic properties. It quiets some nervous headaches, though it appears to have no effect on true migraine. Its hypnotic action is pronounced, but inconstant. Thus in twenty-six patients, (paralytics, paranoiacs, etc.,) to whom thymacetine was given on account of sleeplessness, ten received no benefit, while in the other sixteen it was effectual in producing sleep. In these cases where it was effective, its hypnotic action was often equal to that of chloral.

In medicinal doses it is not toxic, although it may sometimes cause a certain amount of cerebral congestion with throbbing. The dose given by M. Jolly varied from a quarter of a gramme to a gramme. The hypnotic dose was about half a gramme.

Although these observations are insufficient to permit us to fully estimate the therapeutic value of this new product, it appears worthy of the attention of practitioners.—Jour. de Méd. de Paris, No. 4, 1892.

H. M. B.

Chloral-Hydrate and Cardiac Disease.—Verechtchagrine, Thèse de St. Petersbourg, 1891, (abstract in Jour. de Méd. de Paris.) in order to test the effects of chloral in cases of cardiac troubles, selected twenty-one patients (seven cases of mitral insufficiency, eleven cases of aortic insufficiency, one of aortic stenosis, and two of mitral stenosis.) to whom he administered chloral-hydrate for a number of consecutive days to the amount of 1.85 to 2 grammes per diem, giving at the same time cardiac tonics (digitalis and adonis vernale) which masked slightly the action of the chloral. During the whole time he observed closely the temperature, pulse, respiration and blood pressure, (by Basch's sphygmomanometer,) the quantity of urine, its density, the albumen contained in the urine, and the bodily weight.

The results obtained are reported satisfactory. The dose of 1.20 to 1.80 grammes was followed by tranquil sleep without any unfavorable action on the heart.

H. M. B.

Nervous Transfusion.—M. Constantine Paul presented a communication to the Académie de Médicine, of Paris, at its seance February 16th, (reported in Le Progrès Méd.,) on the treatment of neurasthenia by nervous transfusion,

and reported three cases thus treated of neurasthenic chlorosis, three of typical neurasthenia, one of permanent slow pulse, and three of tabes, all of which were either cured or improved. The liquid employed was a solution of the strength of one-tenth of the grey substance of the sheep's brain, sterilized according to the method of M. Arsonval. The dose given was five cubic centimeters, injected into the thigh, without any unfavorable accidents. Under the influence of these injections the patients experienced a feeling of well being. The muscular weakness rapidly diminished, and later the spinal hyperesthesia and the intellectual defect also disappeared. The appetite improved and the patient gained in bodily weight.

M. Paul compares the nervous system of neurasthenics to an accumulator that needs charging. The injection of nervous substance supplies the need and the patient improves much more rapidly than from the effect of medical, electrical, or moral treatment.

H. M. B.

Hypnotism in Mental Diseases.—Luys, in a lecture published in the Jour. de Méd. de Paris, March 7, 13, 20, on the therapeutic application of hypnotism, admits that it has not given, as yet, as good results in disorders of the mind as he claims to have obtained with it in other types of nervous disorder. The lack of attention in the insane is a serious bar to the utility of hypnotism, and he thinks that to avail ourselves of its effects, in this class of cases, it will be necessary to use other methods than the ordinary visual ones now employed. Nevertheless, he holds that in certain cases where there are lucid intervals or where latent hysteria exists, there is some chance of success with this agent. In certain forms of incipient paresis, also, and in some young women, and in certain cases during convalescence, he obtained advantageous results.

He believes that with new methods, not yet at our command, we may yet be able to utilize hypnotism more extensively in mental disorders, and even at the present time it is possible to alleviate certain symptoms; to sometimes annul hallucinations and persecutory delusions in their beginnings.

н. м. в.

Drunkenness and Criminality.—At the session of the Soc. de Méd. Légale, Paris, November 10, 1891, (Le Prog. Méd., No. 47, 1891,) M. Motet related some observations on inebriety in its relation to crime. This question, which was raised in the last congress at St. Petersburg, has not yet been sufficiently elucidated. According to M. Motet it is necessary to consider two principal classes of cases: one consisting of simple inebriety, characterized by a voluntary transient intoxication and not diminishing, in any sense, the responsibility of the individual, who is therefore punishable for acts he may commit under its influence; the other class comprising cases of pathological inebriety, accompanied by absolute irresponsibility. Between these two groups must be placed inebriety showing itself in the individuals, who, without being properly called insane, yet present certain deviations from the normal condition, which require them to be placed amongst the unbalanced or defective classes. For the delinquent of this category, M. Motet makes H. M. B. application of the theory of attenuated responsibility.

SULFONAL AND CODEINE IN COMBINATION.—W. Svetline, of Viene, Jour. de Méd de Paris, (abstract from report of private hospital,) has after considerable experience satisfied himself that the hypnotic action of sulfonal is considerably increased by the addition of codeine in the proportion of .03 to .05 gramme of codeine to each gramme of sulfonal. He has never observed any injurious effect and therefore does not accept the theory of the bad effects of sulfonal which have been reported in recent times.

H. M. B.

Sulfonal.—Dr. S. Fransisco (Annalè de Neurologia IX, Fasc. II, III, IV, 1891,) reports the results of his studies on the action of sulfonal upon the pulse and upon the cerebral circulation. His observations were made upon an Italian laborer who had suffered a fracture of the skull, leaving a cicatrized gap in the cranium, through which the cranial pulse could be studied. It involved the region over a part of the anterior ascending, the second and third frontal convolutions. The apparatus he employed was similar to that used by Rummo and Ferrannai, by which the impulses of the cerebral and radial circulation were recorded on a chronograph simultaneously. His article is illustrated by parallel tracings, which are discussed at length, and he sums up his deductions from the same in the following conclusions:

- 1. That sulfonal is a good hypnotic.
- 2. That in a dose of three grams it has its action on the heart and vessels. On the heart it acts by strengthening the systole, on the vessels by increasing the vascular tonus.

This action upon the vessels is not continuous, since, after a certain period, it produces a state of dilatation and progressive diminution of elasticity, first on the cerebral, and later on the peripheral vessels.

The alterations in the vessels are in relation with the quantity of the drug ingested.

H. M. B.

Bromides.—At the seance of the Soc. de Biologie, November 21, 1891, (reported in Le Progrès Méd..) MM. Féré and Hurbert communicated results of study on the accumulations of bromide of potassium in the organism. All the tissues may become more or less saturated with the bromides, but certain ones are specially liable to this accumulation. These are those of which the nutrition is comparatively slow or feeble, such as the cartilages of the bones. M. Féré compared these observations with the well known investigations of Duhamal, and also of Flourens on the fixation of madder in the bones.

At the same meeting M. Féré reporte? his observations on the comparative toxicity of the bromides. He employed, of late, in his experiments, intravenous injections into rabbits, of a one per cent. solution, administered slowly. The most toxic of the bromides are those of mercury, gold, copper and barium; the least toxic are those of calcium, strontium, lithium and sodium; bromide of potassium is nearly midway in the scale. Bromide of strontium, which is very feebly toxic, may be substituted with advantage for the potassium salt in the treatment of epilepsy with large doses.

CEREBRAL SURGERY.—The following are the conclusions of a memoir by MM. Leonte and Bardesco, Rev. Chirug., Paris, 1891, (abstract in Jour. de-Méd., No. 10, 1892);

- (1.) Trephining is a comparatively harmless operation when done according to modern antiseptic methods. The doctrine of cerebral localizations has multiplied its indications and rendered it frequent.
- (2.) Intervention is justifiable in cases of paralysis or convulsions when these are due to organic irritation, or to functional destruction of encephalic centres.
- (3.) Special note should be taken, as indication for operation, not only of the motor, but also of the subjective sensory and sensitive disorders, since these signs afford instruction as to the locality for operation. En risumi: (a) The operation is indicated in cases of symptomatic convulsions or paralysis. (b) In essential epilepsies the operation is empirical and its results difficult of appreciation. Nevertheless, trephining may be performed in extremis and for exploratory purposes.
- (4.) The earlier the operation is performed and the nearer to the first appearance of the nervous symptoms, the more assured will be its success. The success of the operation depends also upon the age of the individual, and in this point of view, it may be said that there is an inverse ratio between the age and the success of the operation.
- (5.) When monoplegia exists with the convulsions, which happens with serious organic or functional lesions of the brain, trephining is formally indicated; its success depends in these cases upon the length of time the symptoms have existed. The appearance of the trouble after the operation does not destroy its value when it is delayed.
- (6.) Repeated operations on the same side or alternately on the two sides; the making of large openings in the cranium and extensive incisions in the meninges, are justified by the principle of surgery, "œuvre complète."
- (7.) In conclusion the results obtained up to the present time from this rational and scientific operation in the medico-chiurgical disorders of the brain are satisfactory enough to lead others to continue in this direction.

н. м. в.

THE ALTERATIONS OF THE PERIPHERAL NERVES IN GENERAL PARALYSIS IN RELATION WITH THEIR NUCLEI OF ORIGIN.—R. Callella, *Annali di Neurologia*, IX, ii, iii, iv, 1891. Conclusions:

(1.) The histo-pathological alterations met with in the cutaneous and intramuscular nerves, as also in the greater part of the spinal and cranial nerve trunks, consist in a parenchymatous neuritis of peripheral origin; a few trunks only showing the signs of simple atrophy of the myeline fibres.

In the different spinal bundles, whether motor, sensory, or mixed, not only do the respective trophic centres (anterior cornua and inter-vertebral ganglia) show no appreciable lesion, but also the anterior roots and that portion of the posterior roots comprised between the spinal ganglia and the coalescence with the corresponding anterior root, have a physiological appearance.

In the cranial sensory and motor nerves (vagus, facial, motor oculi,) the lesions met with, seldom not corresponding as to location, appear generally to be

out of proportion as to degree and difference with those of their respective radicular fibres, and those of the corresponding central nuclei of origin in the medulla, pons and mesencephalon.

- (2.) The intensity of the primitive peripheral alteration of the nerves, is in direct proportion to their distance from the nervous centres; hence it is less in degree and in diffusion in the trunks of either spinal or cranial nerves than it is in the corresponding terminal sensory and motor fibres.
- (3.) Both cutaneous and intra-muscular nerve fibres are involved, but not in the same degree in the same subject, and in different cases one system or the other is always the most affected. Probably there exists between peripheral nerve lesions developing by themselves and those progressing simultaneously and independently in the cord a certain homology, though not a causal connection.
- (4.) To different etiological conditions (alcohol, syphilis, &c.,) and to diverse complications of the morbid process (tuberculosis, &c.,) we can in all probability, attribute the unequal distribution of the lesions in the cutaneous and muscular nerves and the varying clinical and anatomical forms that the neuritis may present in the paralytics. While, nevertheless, the alterations of the peripheral nerves depend upon the paralysis and its complications, it is rather difficult, in the present state of our knowledge, to determine how much of these lesions is due to one or the other morbid conditions.
- (5.) It seems that simple and degenerative atrophy of the peripheral nervous system may be considered as a constant feature of paresis. The mode of their production is unknown in cases of neuritis of peripheral origin. On the basis, however, of histo-pathological researches, showing the lesions to be more advanced in the terminal fibres than in the nerve trunks, it does not seem too rash to assume the existence of a special process, analogous to ascending neuritis, which, following a centripetal course, ascends progressively along the nervous fibres.
- (6.) In these lesions of the cutaneous and muscular nerves should certainly be sought the physio-pathology of various disorders of motility, sensibility and language, whatever clinical form the paresis may present itself in. A genetic relation is undeniable between this primary alteration of the peripheral nervous system and the trophic disorders of the skin and of the lungs (pulmonitis from the vagus) so frequent and fatal in progressive general paresis.

Recurrent Psychoses.—Dr. Greidenberg, director of the Hospital for Insane at Simpheropol, Crimea, states that among about 300 cases received during the past five years, he has noticed seven presenting a peculiar type of recurrence. When received, the patients presented the symptoms of acute confusional insanity, usually with mania. In a very short time—much sooner than is usual in such cases—rapid improvement took place, and within one, two or three days the patients seemed either entirely well or on the high road to recovery. After a few days, however—often within a week—they suddenly began to be restless, and within from one to three days the acute psychosis, in its original form, was fully developed, and ran a similar course to the preced-

ing attack. The number of relapses varied from one to five. All but one of the patients were under twenty-five. Four were males and three females. All ultimately recovered.

The author thinks he is justified in making a distinct group of these and similar cases, for which he proposes the name of "paranoia acuta recurrens."—Centralblatt f. Nervenheilk., June, 1891.

W. L. W.

TREATMENT OF THE INSANE IN BED.—At a meeting of the Dutch Psychiatric Society at Amersfoort, June 25, 1891, Dr. Brosius read a paper on this subject, in which he took the ground that rest in bed was of the greatest benefit in all forms of acute insanity. In the discussion which followed it appeared that it was a common practice to treat melancholia in bed, but that it was not customary with mania.—Ibid., September, 1891. w. L. w.

The Etiology of Tabes.—Erb [Berl. klin. Wochenschr. 1891, No. 29,] reports on 371 cases observed by him since 1883, when he published his first statistics on this subject. The conclusion at which he then arrived, that syphilis is by far the most important etiological factor, is confirmed by his additional experience. Among fifty-one army officers, including surgeons, suffering from tabes, forty-nine had certainly been infected with syphilis, forty of whom had shown secondary symptoms. Among 300 cases occurring in the higher social classes, the percentages were as follows:

These percentages are approximately the same as in his earlier statistics.

For comparison, 5,500 men in a medical clinic were examined, with the result that syphilis was only ascertained in 22.5 per cent., and secondary symptoms in 12.1 per cent.

In three cases of married couples, both of whom had suffered from syphilis, both subsequently developed tabes.

The disease developed most frequently in from six to fifteen years after the infection.

As to other etiological factors, heredity and the neuropathic constitution are of little importance. Intemperance, in alceholics and tobacco, sexual excesses and traumatism are of considerable moment. Out of 550 patients, 207 were business men, and 51 officers. Only one was a clergyman, and he was syphilitic.—Ibid., September, 1891.

W. L. W.

DISTURBANCES OF MENTAL PROCESSES IN PARANOIA.—Ziehen, at the meeting of naturalists in Halle called attention to certain points which he considers to have been neglected in the current accounts of this form of insanity. Attention, hitherto, has been mainly concentrated on the delusions and hallucinations, which have been considered to be the only important symptom of paranoia. The author found that, in addition to these, there might be a

primary acceleration, a primary retardation, or a primary incoherence in the sequence of the mental processes. There are frequent intercurrent symptoms In all forms of paranoia, and especially in the acute forms. Apart from the intercurrent appearance of these symptoms, there were cases in which either of them might be the dominating symptom.

The incoherent form of paranoia has usually been classed and described as hallucinatory confusional insanity; Meynert calls it amentia. The incoherence has been generally thought to be dependent on hallucinations, but the author finds that it is often a primary symptom. The outbreak of incoherent paranoia is apt to be sudden; secondary dementia is rather rare; recovery may take place after a year or more. In a quarter of the cases death occurs from intercurrent symptoms. Febrile conditions are common, such as have been described as acute delirium, the existence of which as an independent form of disease the author questions. He does not insist on classifying the hallucinatory and incoherent forms with the ordinary simple paranoia; the two former have more in common than they have with the latter. He, however, finds it most satisfactory to class under this title those psychoses distinguished by a primary alteration of the intellectual processes, which may take either of three directions—primary delusions, hallucinations, or incoherence—*Ibid.*, October, 1891.

Cerebral Disease from Congenital Syphilis.—Erlenmeyer read, at the meeting of the Psychiatric Society of the Rhine Provinces, June 13, 1891, a paper on a class of cases, five of which had come under his notice within a few years, which he believes to be, hitherto, undescribed. All of his patients were young persons, between the ages of twelve and sixteen years. All were subject to Jacksonian epilepsy, affecting exclusively the extremities of one side. Physical examination revealed the fact that the affected extremities were much smaller than those of the opposite side. The greatest shortening of the arm observed was 3 ctm., of the leg 2 ctm. The greatest difference in circumference of the arm was 2.5 ctm., of the thigh 3 ctm. The motility of these extremities was normal; neither paresis nor contracture was present. Electrical reactions were also normal. There was slight hypæsthesia, principally kinæsthetic in character, manifested in diminution of the sense of localization, and of the position of the limbs, and the weight of bodies.

The history of the cases showed that they had suffered from fever in infancy, after which the convulsions developed. The account of the illness made it probable, in all cases, that the illness was a meningitis with encephalitis. In the absence of autopsies, the author could only conjecture the nature of the lesion, but thought it probable that it consisted in a certain degree of atrophy.

In three of the five cases the fact was established that the fathers of the patients were syphilitic before marriage. In each of two of these three, the mother had had one abortion before the birth of the patient. All three had suffered in infancy with symptoms of congenital syphilis.

The author, therefore, thinks it reasonably certain that in these cases the meningitis was of syphilitic origin. In the other two cases the data for establishing or disproving a syphilitic history could not be obtained.

This affection differs from infantile cerebral paralysis in the absence of motor disturbances. The author, however, believes the difference to be only one of degree, and raises the question whether syphilis may not play a larger part in the etiology of infantile hemiplegia than has hitherto been recognized.

—Ibid., November, 1891.

w. L. w.

Photography in Cranio-Cerebral Topography.—Dr. Sommer, assistant in the Psychiatric Clinic at Wurzburg, has found photography a more convenient method of determining the relations of the convolutions of the brain to the cranial sutures than the customary methods. After sewing the skull, he fixes the head in the upright position, so as to avoid displacement of the brain after removal of the skull-cap. The head is then photographed, and, after removal of the skull-cap, another photograph is taken, either on the same or another plate. In the first case, the two pictures are combined in the negative; in the second, they may be combined in the printing. If the membranes can be removed without tearing the cerebral substance, it is well to do so. The head can be held in the proper position by a screw-clamp.—

**Ibid.**

IDEAS OF PERSONAL IMPORTANCE IN SUBJECTS OF DELUSIONS OF PERSECUTION [Des Idées de Grandeur Chez les Persécutés.]—Dr. Christian, physican at Charenton, has an article on this subject in Arch. de Neurol., November, 1891, and January, 1892. After a summary of the history of the subject, and after drawing a distinction between those cases in which delusions of persecution are merely incidents, and those in which they are the essential and fundamental characteristic of the mental derangement—to which latter class he confines his use of the term "persécutés"—he goes on to discuss the frequent occurrence of delusions of personal importance in this class, and to separate them, with reference to this point, into four varieties:

- (a.) Sometimes the extravagant delusions become 'predominant, constituting a real megalomania.
  - (b.) Sometimes they only appear in an incidental, accessory manner.
- (c.) In many patients they are present, not as an organized megalomania, but as indefinite ideas of vanity, infatuation, inordinate self-esteem.
- (d.) Finally, many subjects of the insanity of persecution have no extravagant delusions, and do not seem susceptible to them. This last class is composed largely of those in whom the delusions of persecution have reference to the genital organs, who, in his experience, rarely develop delusions of personal importance.

These various points are illustrated by notes of twenty-seven cases. The author takes strong ground against those who affirm that this association is an invariable one, although he is satisfied, contrary to his former opinion, that it exists in the great majority of cases.

W. L. W.

VASCULAR SUPPLY OF THE NERVES.—Quenu and Lejars have an article on this subject in the Archives de Neurologie for January, 1892. They find that

the subject has been neglected hitherto, and that no adequate description of the blood-vessels supplying the nerves has been given. The following are the more important conclusions at which they arrive:

I.—Arteries. No nerve of importance derives its entire arterial supply from a single artery. The branches given off to the nerves are of definite and uniform origin, and invariably divide into two on reaching the nerve, each of which anastomoses with its neighboring branch, thus forming by a series of arches, an arteriole which accompanies the nerve in its whole length. This arrangement appears to the authors of importance in reference to the collateral circulation in case of obstruction of main arteries. The branches given off from the main trunks reach the nerves either obliquely or circuitously, divide repeatedly before penetrating the nerves, and the larger branches resulting from this division penetrate directly to the centre of the nerve, dividing there into smaller twigs. The arteries are only applied to the nerve-fasciculi in a very fine state of division. The authors do not state whether or not they anastomose within the nerve, but this would appear to be the case from the figure they give. These dispositions guard as effectually as possible against too sudden a flux of blood to the nerve, as well as against obstruction to the vascular supply.

II.—Veins.—The veins of superficial nerves invariably empty into deep veins. When they communicate with superficial veins it is only by anastomoses of little importance. The veins accompanying an arterio-venous bundle empty principally into muscular collaterals and into the net-work of vasæ vasorum surrounding the artery. Some branches may empty into the large vein directly, but this is never the case with all. The veins of the plexuses empty into collateral channels of muscular origin. These arrangements secure an efficient emptying of the veins by muscular action. The mode of emergence and of division of the veins is like that of the arteries.

W. L. W.

SLEEP-LIKE CONDITION IN ANIMALS AFTER REMOVAL OF THE CEREBELLUM.—Borgherini [Neurol. Centralblatt, 1891, No. 21.] describes an interesting phenomenon in dogs from which the cerebellum has been completely extirpated. If, after the irritative symptoms resulting from the operation have entirely disappeared, the animal is blindfolded, so that he can see absolutely nothing, instead of moving about, as previously, he remains standing, spreads his limbs apart, and lays himself slowly down, in such a position that body, neck and head are supported. In this condition the dog will not move when called, shaken, pinched, or put in uncomfortable positions. He would only alter the position of the limbs when they were twisted to a very painful extent. If lifted by the skin of the neck, he would let his head, ears and limbs drop, as if completely lifeless. The tendon reflexes in this condition are greatly lessened; the respiration slowed. As soon as the bandage is removed, all these symptoms disappear, and the animal moves itself as before.

The author compares this phenomenon to the sommolent condition first observed by Strümpell in human beings with complete cutaneous anæsthesia when the eyes are bandaged and the ears stopped, which is explained by the cessation of the normal stimuli to the brain. It differs in the fact that the dogs retained the sense of pain.

The author's explanation is, that the privation of the sense of sight, by which the locomotor disturbances were partly corrected, gives the animal the feeling of complete immobility; that it loses the will to move, and from this to complete immobility the transition is short.—Centralbl. f. Nervenheilk., December, 1891.

W. L. W.

Pathological Anatomy of Acromegalia.—Histological examination of the various tissues of a patient dead of this disease, by Marie and Marinesco, (Arch. de Méd. exper. et d'anat, Path., 1891, No. 41.)

In the extremities, there was hyperplasia of the papillæ and hypertrophy of the cutis. All the connective tissue elements were much thickened, even the finest, as the membrane of the sudoriparous glands, and of the hair follicles; the walls of the vessels. This hypertrophy reached its maximum in the sheaths of the subcutaneous nerves, which were themselves degenerated. The alteration decreased towards the larger nerve-trunks; thus, the median presented only a slight hyperplasia of the interfascicular connective tissue.

The periosteum, the perichondrium, and the aponeurotic insertions of the muscles, with the septa of connective tissue extending to them from the surface, were hypertrophied.

In the bones, an osteogenetic process, resulting in increase of length and diameter, was combined reabsorption, shown by enlargement of the medullary spaces.

The macroglossia was due to thickening of the submucous, inter and intrafascicular connective tissue; the contractile substance of the muscles was destroyed by proliferation of the nuclei. The nerve trunks of the tongue were almost unaltered, and the peripheral twigs showed no such marked degeneration as in the extremities.

The mucous membrane of the tongue, nose, larynx and trachea showed simple thickening with cell-infiltration.

The inferior cervical ganglion of the sympathetic was sclerotic. The neuroglia of the brain was hyperplastic.

The cortical substance of the kidneys presented the changes of chronic parenchymatous nephritis. The interstitial tissue was sclerotic.

The pituitary gland showed hyperplasia of the follicles, marked sclerosis of the vessels and of the walls on the alveoli, the cells of which were also altered. The spleen and lymphatic glands were sclerotic.

The pathogenesis of the disease is still entirely uncertain. From the appearances, it is entirely improbable that the disease depends on a primary nervous or vascular disorder. Whether the apparently constant hypertrophy of the pituitary body has any significance in regard to the pathogenesis is, in view of our ignorance of its function, a question for the future.—Centralblatt f. Nervenheilk., November, 1891.

W. L. W.

RELATIONS OF VARICOCELE TO NEURASTHENIA.—Wiederhold (Deutsch. Méd. Wochenschr., 1891, No. 37,) states that he has found neurasthenia, in a considerable proportion of cases, to result from varicocele. The symptoms are irritable, nervous weakness, incapacity for physical and mental exertion, great

sexual excitability combined with incapacity for coitus, and severe depression of spirits with suicidal ideas. Another group of patients suffers from neuralgia, especially of the intercostal nerves, increased or irregular action of the heart, with paræsthesia and perspiration on the side corresponding to the varicocele. He attributes the neurasthenia to an irritable condition or disturbance of nutrition of the genitals, produced by the varicocele. By the local use of electricity and water, to improve the tone of the relaxed veins, he has brought about full recovery in a comparatively short time. He is, however, doubtful as to the permanency of the cure in such cases.

He suggests the possibility of an analogous condition in the female sex, in the so-called "ovarie," which he thinks may be due to disease of the venous plexus surrounding the ovaries. The left side is most frequently affected in varicocele, and the same is true of the neuralgic troubles of hysterical women.

—Ibid. w. L. W.

Relations of Some Forms of Acute Insanity to Paranoia.—Rosenbach, (Annal. Méd. Psych., Nos. 1,2, 1891,) discusses the propriety of the term "acute paranoia," applied by Westphal to the condition characterized by other authors as primäres acutes Delir, hallucinatorische Verwirrtheit, hallucinatorischer Wahnsinn, délire d'emblée, delusional stupor, the prominent symptoms of which are the sudden outbreak of hallucinations and delusions in great variety, usually combined with motor excitement and complete confusion of ideas. The patients generally recover, and in the contrary case pass into a state of mental enfeeblement without systematized delusions. On this account he objects to classifying it with chronic paranoia. He considers it a psychoneurosis, and proposes the name "folie générale."

The original article contains histories of seven cases. Hereditary predisposition was present in most; excesses of various sorts, anæmia, fever and the puerperal state figured as exciting causes. In all the disease began suddenly, with numerous delusions of persecutory, hypochondriacal or melancholic character, without any consistency, and complete mental confusion. Most of the cases recovered.— $Ibid_{\bullet}$  w. L. w.

Paranoia from the Clinical Standpoint.—Dr. C. Neisser, assistant physician at Leubus, maintains, in a paper read at the meeting of the Association of East German Alienists, December 5, 1891, that the fundamental symptom of paranoia is neither the delusions nor the hallucinations, but what he calls "morbid self-reference," (krankhafter Eigenbeziehung,) or the disposition on the part of the patients to imagine that everything has some mysterious reference to themselves. This symptom, he thinks, is never wanting in the earlier stages of the affection, and in some cases may, for a long time, be the only noticeable departure from a healthy mental condition. In view of the fact that the intelligence of the patients, in regard to matters not connected with their delusions, often seems entirely intact, he is disposed to favor the hypothesis that this morbid self-reference may have a local origin and instances the suggestion of Meynert, that irritative conditions in the medulla oblongata may cause hypochondriacal feelings, and thus keep the

attention of the patient constantly fixed upon himself. The hallucinations he is disposed to regard as due to local irritation of sensory areas in the cortex.

The author describes three cases of what he considers a hitherto undifferentiated form of insanity, although the name he applies to it—"acute paranoia"—has already been in use for various conditions. All the cases had a sudden outbreak, with hallucinations, mental confusion and violent motor excitement; as the excitement subsided, it was found that the patients presented the symptom of "morbid self-reference" in a very high degree. Two recovered; the third was still under treatment.—Ibid., January, 1892.

W. L. W.

RELATIONS OF ANAMIA AND HYPERAMIA OF THE BRAIN TO EPILEPSY .-In experimental researches on this point in Obersteiner's Laboratory, at Vienna, Gutiko came to the conclusion that the rotation of animals (guineapigs) in a centrifugal machine with the head outward produced anamia; with the head inward, hyperæmia of the brain, contrary to the statements of Salathé. The discrepancy he explains by the supposition that the latter had continued the rotation after the death of the animals. Experimenting on guinea-pigs after Brown-Sequard's method of producing epitepsy by section of the sciatic nerve, he found that in six of forty animals that survived the operation, epileptic attacks could be excited by pinching the "epileptogenous zone," and four of these subsequently developed spontaneous convulsions. Twelve others reacted on pinching by slight lifting of the injured extremity: the remainder seemed entirely normal. In experimenting on the latter animals, twenty in number, he found that epileptic attacks could be produced in all that survived the experiment by rotation with the head outward, while rotation with head inward produced no such effect. He concludes that, in the state of nervous instability produced by the operation, anamia of the brain is favorable to epilepsy.—Ibid. W. L. W.

Relation of Insanity to Puerperal Psychoses.—Olshausen (Zeitschr. f. Geburtshl. u. Gynaekol., XXI, 2,) finds that puerperal psychoses are most common in cases of puerperal pyæmia and ulcerative endocarditis, rarer in pure septicæmia. In the pyæmic cases we often have to do with meningitic or encephalitic processes—especially capillary embolisms. Insanity may also follow eclampsia, as was observed in five out of two hundred cases occurring in the Berlin University Clinic during the last five years.

The author divides the puerperal psychoses into three groups: (1) Infection-psychoses, directly dependent on puerperal disease. (2) Idiopathic psychoses, without fever, including most of the insanities of pregnancy and lactation, and a part of the puerperal cases properly so-called. (3) Intoxication-psychoses, after eclampsia, or, exceptionally, in uramia without eclampsia. The latter are distinguished by their early appearance (seldom later than the fourth day) intense hallucinations, rapid afebrile, and often favorable course. What cases of eclampsia specially dispose to insanity, and whether long-continued sopor is specially dangerous, cannot now be determined. It is doubtless dependent on the uramic alteration of the blood, analogous to the cases occuring in chronic kidney disease,—Ibid. w. L. w.

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How to Make DRY PREPARATIONS OF THE BRAIN. - Dr. Ludwig Stieda describes, (Neurologisch. Centralbl., March 1, 1892,) a method of making dry preparations of the brain. The organ is first placed in a concentrated aqueous solution of zinc chloride. Sufficient of the latter is used to cause the brain to "swim" in the fluid. It remains in this for twenty-four hours. The pia is now removed—the removal is easily accomplished. The brain is next placed in ninety-six per cent. alcohol, which is renewed every five or six days. In two or three weeks the organ is sufficiently hard; it is advisable to dehydrate it thoroughly in the alcohol ere it is placed in the next medium, which is turpentine; in this the brain remains from two to four weeks. It becomes again somewhat soft, but also translucent, at the same time of a brownish tint, from the action of the turpentine. Lastly—and this is the special feature of the process—the brain is placed in the ordinary drying-oil ("oilvarnish") of commerce-such as is employed in oil-painting. Here it lies for two weeks, after expiration of which time the organ is removed and exposed unprotected to the air for from one to two weeks, at the temperature of the room. The brain becomes quite dry and loses its oily feeling. The author states that brains so prepared have an agreeable brown color, are but little shrunken, and are well adapted to teaching purposes. E. G.

Consumption of Alcohol in Belgium.—The following facts are quoted from the *Illenauer Wochenblatt*, 1890, No. 25: 10,000,000 litres of alcohol are now consumed yearly in Belgium; the rate of consumption increases steadily. In the last fifteen years the population has increased fourteen per cent., the use of alcohol thirty-seven per cent. In the same time the cases of mental disease resulting from drink have increased forty-five per cent, those of crime and suicide seventy-four and eighty per cent., respectively; the increase in the last two classes is ascribable, in great measure, to alcohol. The country spends 135 millions (francs probably, though this is not stated,) in strong drink, and sixteen millions in public education. There are 5,500 schools and 136,000 public-houses.—Der Irrenfreund, 1891, No. 7 and 8.

E. G.

March's Method of Staining.—In the Centralbl. f. Nervenheilkunde. u. Psych., March. 1892, Dr. Redlich has an article upon March's method of staining pathological preparations of the nervous system. He has worked with this method in Obersteiner's laboratory, and, after much experience, is prepared fully to endorse the very favorable criticism which has been passed upon it. The method is briefly stated, as follows: The piece of nervous tissue to be examined—which should be as small as possible, from three to four mm. high—is kept in a two per cent. solution of potassium bichromate, or in Müller's fluid, for eight days (longer does not hurt); it is next placed in a mixture composed of pot. bichrom. (three per cent. sol.) two parts, and osmic acid (one per cent.) one part, for five to eight days, until it becomes almost entirely black. It is then further hardened in alcohol, and finally cut i celloidin or photoxylin. Sections of normal nerve-tissue are stained equally

throughout of a brownish color, nerve-fibres and ganglion-cells being well differentiated. Degenerated tracts, fat-granules, and the fatty pigment of ganglion-cells appear deep-black against a brown ground. A degenerated nerve-fibre is marked out by a series of black globules, of varying size, occupying the medullary sheath, or, in a more advanced stage of disease, by balls of myelin, fat-granules, and detritus-stained black. The chemical basis of the process is as follows: Myelin when combined with bichromate of potash no longer gives a black reaction with osmic acid; fat and the products of disintegration of myelin, on the other hand, form no combination with chrome, and give a black color with osmic acid. This method of staining presents us with positive pictures of Nal's method. Dr. Redlich has been able by employing it to follow up tracts of degeneration in the cord with great accuracy, and states that degenerated fibres are portraved by it in greater detail than is the case with any other method. Its preparations of brains of general paralytics made by him, after Marchi's method, the degeneration of nervecells and myelin, and the accumulation of fat-granules upon the walls of blood-vessels were very well shown. With the peripheral nervous system also good results were obtained. Sections stained in this way permit of subsequent double staining (carmin, fuchsin). E. G.

THE SURGICAL TREATMENT OF INTRACRANIAL FLUID PRESSURE, -Dr. J. Batty Tuke (British Medical Journal, January 16, 1892) gives the history of a case of general paralysis in which trephining was performed for the relief of symptoms of intracranial pressure. The operation resulted in temporary improvement, but the symptoms of pressure returned and the patient died in less than four months. Dr. Tuke remarks that the history of the case is much the same as that of all others which have been trephined for the relief of intracranial pressure in general paralysis. Relief is afforded as long as the fluid can escape, but as soon as the wound heals the symptoms return, and the disease runs its course. The temporary relief obtained causes inquiry as to whether permanent drainage can be established, and, as it is considered impossible to do this by operation at the base of the skull, Dr. Tuke proposes a laminectomy of the second or third lumbar vertebra, puncture of the arachno-pia, as suggested by Mr. John Duncan, and the insertion of threads of horse hair. Mr. Duncan has performed the operation at this spot for traumatism, and had no difficulty in establishing a free flow of cerebro-spinal fluid. Although the flesh wound is deep, the arachno-pia can be easily reached. Dr. Tuke considers the operation justifiable in early cases with symptoms of intracranial pressure, and states that he will perform it in the first suitable case that comes under his care. R. G. C.

Foreign Bodies in the Stomach.—Dr. Joseph D. Craig, of Albany, N. Y., reports the post-mortem examination of the body of an insane woman, in which were found, partly at the pyloric end of the stomach, and partly in the duodenum, the following named articles: Fifty-one pins, sixteen needles, thirty-two nails, two screws, three darning needles, three pieces of iron, two

rolls of hair, two pieces of wood, three pieces of cloth and six hair-pins. Dr. Craig records three additional cases, (two of them previously reported by Dr. Andrews and Dr. Bastian) from whose bodies needles were removed. The four cases presented the following characteristics in common:

- 1. The large number of bodies found.
- 2. Their presence in each case in a woman.
- 3. The persistent refusal of each to give any information as to the method of introduction of the foreign bodies, or that they were introduced at all.
- 4. The length of time the foreign substances, particularly needles, remained in the body without giving rise to dangerous complications.

To these may be added an instance with characteristics similar to the cases reported by Dr. Craig, occurring in the service of Dr. Allison at the Willard State Hospital. The patient, a case of terminal dementia, died of acute peritonitis. The autopsy revealed complete obstruction of the lower portion of the ileum caused by a large accumulation of rags, pieces of wire bedding, bone, comb, strings, and similar rubbish.

J. M. M.

## BOOK REVIEWS.

Genius and Insanity. (The Man of Genius, by Cesare Lombroso. Contemporary Science Series. C. Scribner's Sons.)

It is curious to observe the crop of sciences and of pseudo-sciences, each claiming for itself special consideration and isolated treatment, which has of late years sprung out of the various closely connected branches of older psychology and physiology. Such sciences are in great part the result of the specializing tendency which has made itself felt in all branches of activity, in part that of the great impetus given to the study of natural science, by Darwin's presentation of the doctrine of evolution. Darwin gave much to his contemporaries in laborious observation and faithful and untiring pursuit of scientific truth, but the great debt we owe him consists in his emphasis of the idea of order and principle running through the natural world, and in the conviction which he transmitted to his co-workers in science that every phenomenon possessed a discoverable cause. This is the true source of the new light that has burst upon our age. On the other hand, amid this light. we suffer from the counterbalancing disadvantages. Scientific progress has become one long and bitter attack upon the miraculous, the supernatural, upon religion itself. We are accustomed, nowadays, in scientific works to find it carelessly or arrogantly assumed that the bases of Christianity have been undermined, that religious faith is a factor which need not be counted with. Nor is it merely the dogmatic tenets of Christianity that have been thus assailed: every makeshift that has been devised within the last two centuries in the vain hope of filling its place. Deism is a thing of the past; Positivism itself must tremble when it beholds its defied humanity, the ideal man of the future, presented as an epileptic madman. For that is the text and conclusion of this volume of the Contemporary Science Series, "The Man of Genius," translated from the Italian of Professor Cesare Lombroso. Professor Lombroso is known in this country, principally, as the mainstay of the new science of criminal anthropology, to which a volume of this series has already been devoted, and here he comes before us ready to maintain that the Man of Genius is brother to the epileptic and the lunatic, and first cousin to the criminal.

Now if this work purporting to be scientific were written in the true scientific spirit, with respect for facts and caution of conclusions, we should have nothing to complain of. One of the lessons that all parties and sects alike are beginning very tardily to learn in this last quarter of the XIX th century, is that Truth can hurt no one and nothing. If again this were a philosophic work, grounded on theory and hypothesis and asking whether the facts correspond or not, we should as little complain. Such theoretical works possess just the weight of the author's genius, and usually serve to reveal him much more than the world of nature. But here we have hypothesis claiming to be the result of strict scientific investigation and reluctant conviction, bolstered up by half told truths, misrepresentations and assumptions.

Misrepresentation is none too strong a word to apply to the statement of Carlyle's relations with his wife, who, in the author's words, "was compelled to be his servant. The idea of traveling in a carriage with his wife seemed to him out of the question, he must have his brother with him; he neglected her for other women and pretended she was indifferent. Her chief duty was to preserve him from the most remote noises. The second to make his bread, for he detested that of the bakers. He obliged her to travel for miles on horseback as his messenger, only saw her at meal-times, and for weeks together never addressed a word to her, although his prolonged silence caused her agony." Observe how skilfully, and at the same time absurdly, all that was boorish and unamiable in Carlyle's demeanor is in the interest of theory exaggerated into the capricious and eccentric, and how isolated incidents are stated as the rule and habit of his life.

Similarly we are treated to an account of Napoleon from Taine, and of St. Paul from Renan, in each case a piece of special pleading, whereby the one is shown to be normally insane, the other an epileptic, subject to haliucinations and becoming ferocious under religious excitement. After this can we be surprised to find Paul's master himself cited as an example of the moral anæsthesia of genius, that is, the want of sympathy for country, friends and family, which is supposed to be frequent in the philanthropist and religious enthusiast?

It is not our purpose to follow out the argument minutely, because the reckless misuse of facts seems, for the most part, to invalidate it. Its lines may be indicated as follows: "Most men of genius have exhibited symptoms which are characteristic of the insane," and to tell the truth, it would be hard to find the man who does not show some of the symptoms which are here pressed into service. "Many men of genius have been insane all their lives." Observe that in these, Professor Lombroso includes Mahomet, Savonarola and Luther as well as Cardan, Rousseau and Rienzi. "Many madmen show artistic taste and in some their abilities are improved during the attack." "Many men of genius have suffered from epilepsy." In regard to those of whom no insanity, no epilepsy, no nervous affection has been recorded, we may assume that either the disuse remained latent, though assuredly present, or that the attacks and symptoms wanted a witness." Hence "Genius is a degenerative psychosis of the epileptic group."

As to the men of genius and of ability in whom there was a clear strain of insanity, there is much that is interesting in this volume. But the reader will soon notice that there is a great deal about little men, Baudelaire, Verlaine, Cardan, Gogol—and very little about the great men, Shakespeare, Dante or Goethe. There is absolutely no example of a man of letters of high standing who could with any plausibility be termed insane, except, perhaps, Rousseau. The opinions expressed are sometimes merely absurd, as where Luther is classed as insane, and George Fox and Fourier as "mattoids of little or no genius." The arguments are often puerile, as in the case where we are led from the maniacal tendency to destruction, to the fondness of Gladstone and Bismarck for cutting down trees. Quotations are systematically used without regard to their context or true weight. The whole book might easily be adapted so as to prove that editors are insane, or that physicians are insane,

or, indeed, that any given group of men ought to be within the walls of a lunatic asylum.

Indeed we are strongly reminded of the too familiar monomania for discovering insanity everywhere, which, so far as 1 know, possesses no peculiar scientific name, but which has been detected once or twice in very distinguished alienists.

There is much interesting information in the book on those who may properly be called insane, and a great collection of facts, a large proportion of which are no doubt correctly stated. These facts mean something; they do sometimes seem to indicate some connection between affections of the brain and certain forms of genius. But the question as to what that connection is this volume helps us but little to solve. It is a bad example of reckless science.

J. B.

Remarkable Collection of Foreign Bodies in the Stomach. By JOSEPH D. CRAIG, M. D., Albany, N. Y. A paper read before the Albany County Medical Society. Albany Medical Annals, 1892.

The history of the case is as follows: A female, age twenty-four, unmarried, a native of Sweden, and a servant by occupation, was admitted to a State Hospital November 24, 1890. On admission patient took but little interest in her surroundings, was confused, childlike and incapable of giving a reliable account of herself. It was frequently impossible to engage her in conversation, and when she was disposed to talk she used such broken English, and was so incoherent as to make it difficult to follow her. Her general health was apparently fair, and she weighed 150 pounds. In the latter part of December she began to fail and complained of colicky pains in the abdomen, and had diarrhæa and vomiting. Under treatment these symptoms subsided, and she was able to occupy herself with light work until March, 1891, (about two months before she died,) when she again complained of pain in her stomach and vomited.

About this time she had three profuse hemorrhages from the bowels, which were very dark in color and attended with considerable griping. A careful examination of the abdomen did not reveal any evidence of a malignant growth. Her chest had been examined several times previously, and there had been discovered some evidence of consolidation of the apices of the lungs.

At this time another examination was made and the consolidation on the right side had increased. From this time on she failed rapidly, became emaciated, had night sweats and cough with profuse expectoration. She did not, however, have any further stomach or intestinal disturbance until April 20th, when she again complained of pain. She had frequent attacks of vomiting, but did not eject anything resembling blood. On May 23d, she had two hemorrhages from the lungs, and also some bleeding from the nose. At this time she took nourishment fairly well and appeared to be free from any distress. On the 25th of same month she was again troubled with vomiting, but had no pain with it. It was necessary to cathetherize her for retention of urine. The vomiting subsided in the course of twenty-four hours, and she had no further attack. She died on May 29th, 1891.

The post-mortem examination revealed the following articles, one hundred and twenty in number, collected together, partly at the pyloric end of the stomach and partly in the ascending portion of the duodenum: 1, Fifty-one-pins. 2, Sixteen needles. 3, Three darning needles. 4, Thirty-two nails, varying in length from one-half to three inches. 5, Two screws, one of them two and a half inches long. 6, Three pieces of iron, three and a half by one-quarter inches. 7, Two rolls of hair. 8, Two pieces of wood. 9, Three pieces of cloth, each about five by one inch. 10, Six hair-pins.

The metal pieces were much corroded and some of the pins and hair-pins were bent; the pieces of cloth were evidently part of clothing of the patient.

Dr. Craig also reported to the Society three other recorded cases, and summed up the four cases as presenting the following characteristics in common: 1, The large number of bodies found. 2, Their presence in each case in a woman. 3, The persistent refusal of each to give any information as to what manner the bodies were introduced or that they were introduced at all. 4, The length of time these foreign substances, particularly the needles, remained in the body without giving rise to dangerous complications.

W. M.

The Mediterranean Shores of America: Southern California, Its Climatology, etc. By P. C. Remondino, M. D. The F. A. Davis Co., Publishers, Philadelphia.

The number of works on Southern California, its climate and its advantages as a health-resort, continues to increase, but the ideal hand-book has yet to be written.

Since Nordhoff, in 1875, so successfully drew attention to this, then but little known, health-resort, the praises of Southern California have been sung in varied strains by journalists, magazine writers, and tourists. The medical profession have also contributed their quota, most commonly, perhaps, in the form of, more or less, valuable papers published by eastern physicians after wintering in one or other of the favored spots in which Southern California abounds. In 1888, too, Drs. Widney and Lindley published their "California of the South." On the whole, perhaps, notwithstanding its climatic superiority to European health-resorts, the strain of nearly all these writers has been pitched too high. The productions of the journalist, especially during the "boom" period, partook too obviously of the character of a "write up" of this or that locality. The papers of the eastern physicians were, many of them, excellent, but necessarily limited in scope. That portion of California of the South, written by Dr. Widney, and dealing with the physical causes which produce the almost unique climate of Southern California, was excellent, but the same could not be said of Dr. Lindley's work. Its point of view was too local. The statistics of temperature were greatly deficient in that they only dealt with mean temperatures, than which nothing could be more misleading. Altogether there was about Dr. Lindley's works a want of the precision of the man of science combined with evidence of slipshod work in describing half a dozen widely divergent places as of the same altitude. Nor was the work as a whole entirely free from the suspicion of being intended to boom the part of the State it described. Its defects, notwithstanding, "Cali-

fornia of the South" will bear a favorable comparison with its most recent competitor, in its own particular line, just issued by Dr. P. C. Remondino, of San Diego, Cal. In his introduction to The Mediterranean Shores of America, Dr. Remondino informs his readers that the preparation of his book "was suggested while trying to unravel the intricate and contradictory information that is encountered in pursuing the study of medical climatology and its relations to the etiology of phthisis -two very mixed up subjects." The book itself, Dr. Remondino describes, in his preface, as "necessarily an incomplete work-being only intended as a short guide or abridged handbook." That the work is incomplete there can be little doubt, that it might have been still further abridged with advantage is equally certain. Dr. Remondino does not state whether his labored and unsuccessful attempt to unravel intricate and contradictory information was intended for the profession or the general public. In either case his attempt cannot be considered a success, in the main, because Dr. Remondino has not attempted to solve the problem by means of personal study and observation, but has confused his mind by discursive reading all around it.

In no sense can this work be considered a study of the climatology of Southern California. The book itself bears internal evidence that the author is not personally familiar with much of the country the climatology of which he is supposed to have studied. As a consequence the work is made up of scraps of information obtained at second-hand, and of statistics and illustrations which have seen service in one or other of the numerous brochures and boom pamphlets issued during the last seven years.

Dr. Remondino has resided in San Diego for the last sixteen or eighteen years, occasionally during that period passing through Los Angeles on his way to San Francisco. Los Angeles is described as being in the San Gabriel Valley! and in the comparison of inland and coast temparatures, inland and coast comparative humidity, and inland and coast barometric readings, Los Angeles is the sole sponsor of "inland" and San Diego of the "coast." The real and actual San Gabriel Valley from Pasadena to Aryusa, with its health-resorts dotted along the foothills at elevations ranging from 500 to 900 feet above Los Angeles, and at points from ten to twenty miles further from the coast, are totally ignored.

No doubt Dr. Remondino honestly intended to write a climatic hand-book of Southern California, but unfortunately he seems to have begun without realizing that for him Southern California means San Diego first, last and all the time. One feels if he were to write a dozen hand-books of as many different places he could no more avoid introducing San Diego than could Mr. Dick avoid dragging in King Charles' head on all occasions.

That phthisical patients have done excellently in San Diego no one doubts. The same, however, may be said of other places along the coast, but this neither proves nor disproves the superiority of seaside over mountain resorts, or vice versá. That the balance of evidence, deduced by professional experience, is in favor of moderate altitudes with a comparatively dry atmosphere, as compared with permanent residence on the coast, Dr. Remondino perhaps unconsciously realizes. If this be so it accounts for his calling on Dr. J. H. Bennet to support his views as to superiority of equable marine climates. To the

average layman Dr. Bennet will simply represent a name, while the professional man will at once recognize him as the Remondino of the Riviera.

So we revert to the remark that the ideal hand-book of Southern California has yet to be written, and that will not be until the State Medical Association, or some similar body, organizes and has recorded, over a series of years, a complete and uniform set of observations in every place having the most remote claim to being a health-resort.

Such records honestly and impartially taken with tested instruments will then afford material for some scientist, of known skill and wide grasp of the subject, and free from the suspicion of local patriotism, to sum up and produce a complete and ideal hand-book.

J. G. B.

On the Use of Creosote in the Treatment of Pulmonary Phthisis. By Beverly Robinson, M. D., Clinical Professor of Medicine, at Bellevue Hospital Medical College, New York. Reprinted from the New York Medical Record.

Dr. Robinson is an ardent believer in the use of creosote, and records it as the most valuable agent at present existing for the treatment of pulmonary tuberculosis. Dr. Robinson claims that, in cases of this class of disease, by the use of creosote the cough is much diminished in frequency, expectoration is diminished in quantity and changed in quality, nutrition is notably aided, the weight is increased, the mind becomes less sluggish and depressed, the body more active, the liver, kidneys and bowels are functionally put in better form, the digestive processes are strengthened, the breathing becomes more satisfactory, night sweats often disappear, and in some cases the fever is allayed.

These highly satisfactory results have frequently been attained with patients who had previously unsuccessfully tried the hypophosphites, malt, arsenic and strychnine, and occasionally with patients who had tried Wiegert's plan of hot air inhalation and various other remedies.

This then is the successful side of the treatment experienced by Dr. Robinson. The drawbacks, admitted by that gentleman, are an occasional intolerance of the stomach, indicated by headache, loss of appetite, and lassitude and occasional diarrhea. Dr. Robinson does not agree with Dujardin-Beaumetz that creosote occasions hæmoptysis, but evidently realizes that a view, recently expressed in the Journal of the Medical Sciences, as to the injurious effect of creosote on the kidneys, is worthy of some attention.

On the whole, indeed, Dr. Robinson is more disposed to lay the blame of failure, in the use of creosote, on the method of its administration rather than on any real or alleged bad property of the drug itself.

Methods of administration and the quantity and preparations of creosote to be used are fully discussed. The one thing lacking in this pamphlet is the reprint of the cases on which the writer bases his conclusions. This omission, curiously enough, is made with malice aforethought, inasmuch as Dr. Robinson remarks that "in regard to corroborative cases of my statements I would refer those who wish to consult them to my original paper." But why should any physician—say in the wild west—wishing to secure the benefit of Dr. Robinson's experience by the study of this reprint, be referred to an

original paper, to which, probably, he has no ready means of access? If Dr. Robinson wished to give the profession a minor text book on the use of crossote why did he not publish his original paper in pamphlet form? For such a procedure there would have been ample justification. We fear we can hardly say so much for the reprint in its present form.

J. G. B.

Consumption: How to Prevent it and How to Live with it. By N. S. Davis, Jr., A. M., M. D., Professor of Principles and Practice of Medicine, Chicago Medical College, &c. &c., F. A. Davis, Philadelphia, Publisher.

In these days of pseudo-medical works and alarmist publications, disseminated by advertising quacks, from the lowest motives, it is a pleasure to peruse a handbook written by a competent physician in plain every day language.

By expanding a series of hygienic rules, prepared for his patients, Dr. N. S. Davis, Jr., has produced a small volume which may be placed in the hands of any consumptive with the certainty that it will tend rather to allay than to increase the nervous apprehensiveness of the patient. Viewing his subject from the hopeful standpoint of modern medical science, Dr. Davis succinctly informs his readers as to the nature of consumption; the best natural means for its prevention and its cure, etc.

The need for pure air, judicious exercise, warm crothing and a change of climate is discussed and dwelt on in a clear common-sense manner, which must recommend itself to every thoughtful reader.

In dealing with the question of climate, and in referring to the various health-resorts, both in this country and in Europe, Dr. Davis has attempted to "bring together descriptions of the modes of action of climates, forms of exercise, kinds of labor, etc., scattered through medical literature."

In thus dealing with climatic information at second-hand, it is easy to fall into error and to repeat the inaccuracies of previous writers. Without seriously detracting from the value of this volume, as a whole, some such inaccuracies can be detected. It is not a fact, as stated by Dr. Davis, that the driest localities in Southern California are a few miles from the coast. is the city of Los Angeles "the best known of the dry localities." Los Angeles as the principal city, in the southern part of the State, is naturally the objective point for health-seekers from the east, or from Europe. But as Los Angeles is only sixteen miles from the coast, it is by no means one of the driest localities. The driest localities are, as a matter of fact, to be found on the other side of the coast range, on the verge of the desert, or in the desert itself, where, it is well to say, that creature comforts so essential to invalids are not attainable. But even on the seaward side of the mountains at points from fifteen to twenty-five miles further inland than Los Angeles there are numerous places at higher altitudes with much drier atmospheres than that of the city. It is to these places that the best Los Angeles physicians send their patients, in preference to keeping them at the lower altitude and in the more humid atmosphere of the city. We should also qualify Dr. Davis's statement that "Southern California climate resembles that of many of the older resorts along the Mediterranean coast." The coast climate of Southern California probably does, but the climate on the Colorado or Yuma desert is essentially different, and on the foothills of the Coast Range greatly superior. The statistics quoted as to the duration of consumption, as collected by Dr. Williams, of London, are evidently the well known statistics of the late Dr. C. J. B. Williams. The present Dr. Williams, of London, is Dr. C. Theodore Williams, the son of the late well known physician.

J. G. B.

The Propagation of Insanity and Allied Neuroses. By S. A. K. Straha, N. D. Reprinted from the Journal of Medical Science.

From the point of view of the statistician the extent to which heredity is responsible for cases of mental disease is still a widely open question, and must be so until the percentages supplied by expert alienists, on the basis of their respective professional experience, come much closer together.

Nor is it easy to determine, even with the annual compilations of Commissioners in Lunacy to refer to, whether there is, or is not, any serious increase in the number of cases of insanity as compared with the increase of population. Competent writers are to be found to argue plausibly on both sides of the question.

Dr. Strahan. assistant medical officer of the County Asylum, Northampton, England, in discussing the question of the "Propagation of Insanity and Allied Neuroses," is evidently of the opinion that insanity is on the increase. He argues that his view is proved by cases of child suicide—almost unknown fifty years ago—by the increase of adult suicide, and by a larger number of deaths registered under the head of Diseases of the Nervous System. The correctness of Dr. Strahan's view to a large extent hinges on the extent and accuracy of the statistics, of from thirty to fifty years ago, when compared with the more elaborate, and, it is to be hoped, more reliable figures that are supplied in our own day. Until the improved records have aged and multiplied, many of the questions discussed by Dr. Strahan must remain undecided. Everyone will, however, agree with the truism quoted from Dr. B. W. Richardson, that "the first steps towards the reduction of disease is beginning at the beginning, to provide for the health of the unborn."

In the case of persons tainted with insanity, Dr. Strahan would go a step further and provide by legislative enactment that persons so tainted should be prevented from procreating children at all. Dr. Strahan fears that the difficulty in securing State interference will arise from the old argument against "the interference with the freedom of the subject."

To us it seems that the tendency of the present day, in English speaking centres, is to ignore John Stuart Mill's warnings as to interference with the liberty of the subject, and to expect that mere legislation per se is going to cure "all the ills that flesh is heir to." Desirable as it is that persons tainted with insanity should be prevented from marrying, we fear that the public is not yet sufficiently educated on this subject to prevent any legislative enactment—however well deserved—becoming a dead letter. But this must not discourage Dr. Strahan and men like him from persevering in their attempt to educate public opinion.

J. G. B.

The Disposal of Sewage of Isolated Country Houses. By William Paul Gerhard, C. E., 36 Union Square, E., New York.

The complete and satisfactory disposal of sewage is still one of the unsolved problems of the age; nor does the tendency of the population to crowd into large cities help to simplify it. In cities, be they ever so great, it is more or less easy to provide a complete system of sewers, but not by any means so easy to satisfactorily dispose of the sewage for which the system is provided.

In country places with scattered population, the difficulty is a double one. A system of sewers is impracticable, and new difficulties arise as to the disposal of sewage. Dwellers, especially on small areas of land, may make such unsanitary arrangements as to create dangerous conditions at their own doors. Or, they may in making their own position secure thoughtlessly, or selfishly, injure their immediate neighbors.

Mr. W. Paul Gerhard, C. E., in a pamphlet on "The Disposal of Sewage of Isolated Country Houses," points out very clearly the dangers arising from the common privy, the leading cesspool, and the foulness of slopwater thrown in the backyard, and discusses the relative advantages and disadvantages of earth-closets and water-closets. While recognizing the same treatment is not applicable in places differing as to soil, grade, and other physical conditions, Mr. Gerhard offers a variety of valuable and practical suggestions as to the disposal and utilization of sewage by sub-surface irrigation.

On one point only does Mr. Gerhard's paper seem open to criticism. In the drawing of a section of a house illustrating sewage disposal by sub-surface irrigation, the waste pipes from the wash bowl, the bath tub, and the kitchen sink, all appear to be connected directly with the soil pipe. If this be the correct reading of the sketch—Mr. Gerhard is evidently so practical a man that we make this proviso—we must certainly dissent from Mr. Gerhard's practice in this particular. It is surely the only safe and sound plan to arrange that the waste pipe from bath, wash bowls, kitchen sinks, and all other sinks, shall never be directly connected with the soil pipe, but shall independently empty outside the house, into a combined basin and siphon, commonly known as a gulley trap, the trap being connected with the house drain. Then, if notwithstanding all precautions, in the shape of fresh air openings, any gas should come through the house drain and pass the system of the gulley trap it will be easier for it to disperse outside the house than to pass up any of the unconnected waste pipes.

J. G. B.

The Outlines of Insanity. A Course of Lectures Delivered at the Albany Medical College during January and February, 1891. By Henry Hun, M. D., Professor of Diseases of the Chest and Nervous System. Reprinted from the Albany Medical Annals, July-October, 1891.

An especially excellent feature of Dr. Hun's work is the discussion of cerebration, constituting the preliminary lecture, in which are summarized the doctrines of the physical basis of insanity. Insanity is here essentially a loss of mental balance, due either to excessive molecular activity, activity of certain cerebral structures, or sluggishness of others 'whose normal function is that of inhibition. In the higher domains of consciousness, this teaching is applied only by analogy, disorders of thought, of the emotions, or of will

following deficient inhibition, and expressing themselves in vivid imagination, compulsory ideas and impulses, incoherence and delusions.

In the lower realm of simple sensations, sense-perceptions, and their stored up memories, some principles of cerebral action have been more definitely ascertained by experimentation and clinical research. In a previous paper* Dr. Hun has shown that each cerebral centre consists of two parts: a smaller one in direct communication with the peripheral nerve, and a larger associated part in which are developed complete perception and recognition. In the sensory regions conscious perception depends upon the molecular activity of the cellular elements of these parts, and the cellular activity of both parts, without adequate external stimulus, produces an hallucination, to which the excitation of the simple sensory portion imparts the element of reality. There seems to be no reason why sub-cortical cells should be invoked to assist in this theory of the genesis of hallucinations, although in the production of illusions they are undoubtedly in activity. In motor regions similar spontaneous activity impels to "muscular actions, which are not the result of reasoning or of the will power, but are involuntary impulses, over which the insane person, with will power weakened by disease, has but little control."

The selection of Krafft-Ebing's classification is good, because the fundamental principle of classification is recognized in the distinction between idiopathic and constitutional or degenerative psychoses. Especially readable are the delineations, in the second and third lectures, of Krafft-Ebing's forms of mental degeneracy comprised under the terms "constitutional affective insanity," "insanity," "insanity with irresistible ideas," "insanity from constitutional neurosis," and "periodic insanity."

The fourth and last lecture treats of etiology, diagnosis and treatment, and contains a tabulated statement of the "Special Diagnosis of Insanity." It is noteworthy that narcotic and depressing drugs are given brief consideration, and that a system of therapeutics based on the principle that mental disease is mental and probably physical weakness, is pointed out as offering the greatest prospect of success in treatment.

These lectures might be read with profit by the practitioner as well as the student. They are presented in the concise manner characteristic of the lecturer, and are free from the didactic dramatics to which this field of inquiry offers so great temptation.

J. M. M.

A Manual of Autopsies, Intended for the Use of Hospitals for the Insane and other Public Institutions. By I. W. Blackburn, M. D., Pathologist to the Government Hospital for the Insane, Washington, D. C. Illustrated. Philadelphia, P. Blakiston, Son & Co. 1892. (12 mo., pp. viii-84.)

This little book was prepared at the instance of a committee of the Association of Medical Superintendents appointed at the meeting of 1890. Its object is to secure uniformity in the method of making and recording autopsies in American institutions. No attempt is made to furnish tables for tabulating results, and it is recommended that the record should be accurate

^{*} Hun: Cerebral Localization. American Journal of the Medical Sciences, January, 1887.

descriptions of what is seen, omitting inferences and opinions. The book is mainly taken up with directions for the examination of the various organs, without any discussion of their pathological anatomy. A section is devoted to the methods of preserving the various tissues for microscopical examination. The illustrations, fourteen in number, are intended to enable the pathologist to locate the lesions found on the surface or in the interior of the brain.

The directions given are clear, concise, yet full enough for all ordinary purposes, and eminently practical. The diagrams are well adapted to their purpose, but we think it unfortunate that in those of the surface of the brain, after Ecker, the various convolutions and fissures are not designated, not only for the benefit of those who may find difficulty in keeping the names of them all in mind, but for the sake of uniformity in nomenclature in the records. With this exception, we see no occasion for fault-finding, and it is unnecessary to go into details as to its merits, as we hope all of our readers will procure and use it.

The Influence of Alcohol on the Organism of the Child. (Ueber den Einfluss des Alkohols auf den Organimus des Kindes. R. Demme. Stuttgart: Ferdinand Enke, 1891.)

The following review, by Sommer, of Allenberg, seems worthy of translation in full:

This work is worthy of serious consideration. Starting from the fact that alcohol, even in relatively large quantity, is often administered to children, even at an early age, and that this occurs not only among the poorer classes of the population, in the false belief in the nutritious qualities of brandy, but also in the better and best situated families, either from lack of intelligence, as is unfortunately often the case, or in confidence in the wholesome action of strong beer and good wine—starting from this far too little considered fact, the author, who has an excellent reputation in this department, discusses the injurious effects which a single alcoholic excess, or more or less, regular alcoholism may exert on the body, and especially the central nervous system of little children.

Acute intoxication occurs usually, in children, under the form of deep sopor of from twelve to eighteen, or even thirty-six hours' duration, and is often ushered in with severe convulsions.

Chronic alcoholism—for the production of which, for instance, the by no means uncommon daily dose of from two to five grammes of cognac in the milk is sufficient—frequently produces dyspepsia, chronic gastric catarrh and hyperacidity. In extreme cases (a boy of four and a half years, addicted in a frightful degree to the consumption of brandy) cirrhosis of the liver has been observed. It also seems unquestionable that both in the children of drunkards and among those who consume alcohol, the growth is often very considerably retarded. Among twenty-seven childen whose height was decidedly less than normal, the only probable cause that could be discovered in nineteen was alcoholism, and three of these grew rapidly as soon as the supply of alcohol was entirely cut off.

The worst influence of alcohol is upon the central nervous system of

children who are still in process of development. Epilepsy and chorea have been not rarely observed as a result of chronic alcoholism or even of only a single excess. (The reviewer has himself observed two patients whose first attack of epilepsy occurred immediately after the ingestion of wine; compare, amongst others, the otherwise interesting case of a boy of two years in Archiv. für Psychiatrie XI, page 589.)

Cases of youthful neurasthenia and striking backwardness in mental development during the school age, and cases of imbecility are often attributable to the abuse of alcohol. Finally, the results of alcoholism of the parents upon their progeny are not to be overlooked. They come even more frequently to observation than cases of direct injury by alcoholics.

The author makes an interesting comparison of ten families, the heads of which could be characterized as drunkards, with ten of which the heads were temperate. The direct offspring of the ten families of drunkards amounted to fifty-seven children. Of these, twenty-five died in the first months; six were idiots, and five comparatively dwarfed, five were epileptic, one boy sickened with severe St. Vitus' dance, which finally resulted in idiocy, and five children suffered from congenital defects (hydrocephalus, hare-lip, club-foot), Only 17.5 per cent. of the children of drunkards were during youth apparently normal. Of the sixty-one children of temperate parents, on the contrary, 81.9 per cent. showed normal constitution and development. Only five died prematurely, four suffered from curable affections of the nervous system, and two from congenital deformities.

The review cannot be better closed than with the following words of the author: "From the standpoint of public health we must accordingly use our most earnest endeavors to guard against the use of alcoholic drinks as beverages by children, It is the physician's duty to instruct rich and poor in regard to the dangers which threaten childhood from the premature indulgence in alcoholic drinks: If the youth refrains from the indulgence in alcoholics during the most important period of development for his future, he will grow up physically and mentally more vigorous in aspiration after the ideal goods of humanity " * and will be able, without external compulsion, in every enjoyment, even in that of spirituous drinks, to observe the moderation worthy of a free man."

It need not be said that a judicious use of alcohol must be directed by the physician in case of necessity, in threatened paralysis of the heart, etc., and as a promptly acting means of economizing the forces in complete prostration of nutrition, even in children. *Centralblatt f. Nervenheilk.*, *December, Geig.* 

Polio-Myelitis Acuta Adultorum. By William C. Krauss, M. D., Buffalo, N. Y. Reprinted from The Journal of Nervous and Mental Diseases, November, 1891.

The patient, a man, forty-three years of age, of somewhat neurotic hereditary antecedents, enjoyed good health until his thirty-eighth year, when he had a severe attack of measles, which resulted in permanent impairment of vigor. His father, and both grandparents on the paternal side, had likewise suffered from measles in adult life. On the 20th of September, 1888, being then forty years of age, the patient, on the third day of what was supposed to

be malarial fever, was attacked with severe pain in the nape of the neck, extending down the spine and into the extremities, and followed, thirty-six hours later, coincidently with the subsidence of the fever; by complete paralysis of the trunk and extremities. The patient was first seen by the author nine months after the attack. All that time there was no psychical abnormality. The muscles of the face and neck were normal in their activity. The right upper and left lower extremities were completely paralyzed; slight movements of the left shoulder, wrist and forefinger, and of the right foot could be made. There seemed to be some power over the muscles of the back, and the actions of the sphincters and of the diaphragm were undisturbed. No electrical reactions to either current could be elicited in any of the muscles of the body or extremities. General and special sensibility were unimpaired. There was atrophy of the muscles of the upper extremities, including the scapulas, but none in those of the neck and lower limbs. No trophic changes. Superficial and deep reflexes abolished. The extremities are inclined to be cold, cyonosed and cedematous. Little change has taken place in the patient's condition since he was first seen. The author admits that the absence of atrophy in the lower extremities is a difficulty in respect to the diagnosis which he makes, and expresses the hope that a necropsy may soon solve the problem.

## A Neuro-Topographical Bust. By the same author. Reprinted from The Journal of Nervous and Mental Diseases, December, 1891.

The bust, modeled in plaster indicates the positions of the sulci and convolutions of the brain, the nerves of the face and neck, and the motor points of the muscles. It could be easily used for recording facts of cerebral topography. Duplicates can be obtained of Gustave Freret, 155 E. 50th Street, New York.

Anatomical Observations of the Bruin and Several Sense-organs of the Blind Deaf-mule Laura Dewey Bridgman. By Henry H. Donaldson, Ph. D., Assistant Professor of Neurology at Clark University, Worcester, Mass. Reprinted from The American Journal of Psychology, Vol. III, No. 3, September, 1890, and Vol. IV, No. 2, December, 1891.

The history of the subject of this investigation is too generally known to require repetition here. Losing the sense of sight and hearing, and, in great degree, those of smell and taste, at a very early age, she acquired, through the sense of touch, under the instruction of Dr. Howe and his assistants, a very considerable degree of intelligence, and developed a strongly marked and estimable character. The study of her brain was undertaken to determine whether any abnormalities existed presumably due to the long-continued disuse of the sense-organs and the faculty of speech.

The brain came into Professor Donalson's possession after it had been preserved for some time in a mixture of solution of bichromate of potash and alcohol. Several incissions had been made in it to insure penetration of the preserving fluid, and it was neither weighed nor measured in the fresh state. Under these circumstances, the original size and weight could only be approximately determined by allowing for the changes produced by the

hardening process. The volume was in this way estimated to be about 1,160 cc., and the weight a little over 1,200 grms. As the subject was five feet three inches high, and weighed, with clothing, about ninety-eight pounds, these figures do not show any marked deviation from the normal standard.

The general shape of the brain presented no very striking abnormality. The hemispheres were slightly flattened at the occipital pole; the temporal lobes were comparatively small, and the fissures of Sylvius were wider than usual, exposing a considerable surface of both insulæ. This uncovering of the insulæ was most marked anteriorly in the left hemisphere, apparently owing to defective development of the third frontal convolution. The gyri were for the most part large, little interrupted and moderately sinuous, and symmetrically and typically developed. The right occipital lobe was smaller than the left, and showed some anomalies in the development of the convolutions.

Very elaborate and painstaking measurements were made to determine the surface area of the hemispheres. The total area of the cortex, including the sulci; was made out to be 200,202.5 square millimetres, which the author considers rather small in proportion to the weight of the brain.

The average thickness of the cortex was found to be less than in any of the nine normal brains measured in the same way for comparison. This thinning was not uniformly distributed; it was most marked in the left insula, the areas for hearing, taste and smell, and the right occipital lobe. The area for motor speech was well developed.

The brain was not well enough preserved for a very satisfactory histological examination. The general impression obtained was that of a somewhat imperfect development of the cellular elements of the cortex. The large nerve-cells seemed to be neither so large nor so numerous as in normal cortex, and both processes and fibres were also less abundant. Counts of the cell-elements in several of the localities, in which the cortex was specially thin, showed a decidedly smaller number of cells than in corresponding regions in healthy brains.

The mucous membrane of the nose was extensively diseased, and the bulbs and tracts were somewhat atrophied. Both eyes were shrivelled, and the optic nerves and tracts much atrophied, the shrinkage being greatest in the left nerve and right tract. In the auditory apparatus, disease seemed to be confined to the middle ear, nothing definitely morbid being discovered in the labyrinth. The lesions found do not seem to account satisfactorily for the absolute deafness, which is not admitted by the authorities as a result of middle ear disease. The auditory nerves were somewhat smaller than normal. The third nerves were of large size, and seemed entirely healthy.

The author calls attention to the fact that the changes in the areas of the brain connected with the deficient senses were not very striking, and queries what occupation the cells in those regions could have found to justify their prolonged existence.

Ihe Semi-Private Care of Epileptics. By the same author. Boston Medical and Surgical Journal, December 17, 1891.

After calling attention to the want of any separate provision for epileptics in Massachusetts, and the objections to treating them in hospitals for the

insane, the author suggests the establishment of small private homes for this class, available to people of moderate means, who would not be able to bear the expense of private hospitals as at present conducted, and would not wish to send their friends to public institutions. In order to put the cost of support within the means of the class for whom provision is desired, endowment would be necessary, in order to provide the comforts of a well-ordered home, trained attendance and skilled medical care at a moderate price.

The Size of Several Cranial Nerves in Man as Indicated by the Areas of Their Cross-Sections. By Henry L. Donaldson and T. R. Bolton. From the Neurological Laboratory of Clark University, Worcester, Mass. Reprinted from The American Journal of Psychology, Vol. IV, No. 2, December, 1891; pp. 224-229.

The authors undertook the measurement of cross-sections of the first, second, third and fourth cranial nerves in ten adults (seven male, three female.) in order to obtain material for comparison with the corresponding nerves in the case of Laura Bridgman. Their account cannot readily be epitomized; the principal points of interest are that the two nerves of the same pair may vary as much as twenty-five per cent. in the same person, and the corresponding nerves more than 100 per cent. in different individuals, without any proportionate difference in the size of the brain.

Every precaution seems to have been taken against error, and the authors believe their results to be accurate within five per cent.

How shall We Deal with the Inebriate? By L. W. Baker. M. D. Member New York Medico-legal Society, of American Neurological Association, N. E. Psychological Society, Superintendent Family Home for Mental and Nervous Diseases, Baldwinsville, Mass.

The author recommends special institutions for inebriates, to which they may be committed legally for a long enough period to afford some prospect of permanent benefit. The first commitment should, he thinks, be for at least one year; if a relapse occurs, the second should be for two years, and if that is not sufficient, for an indefinite period. These institutions should resemble those for the insane in being under medical care and in the power of detention and control, and differ from them in stricter discipline and in the constant employment of the patients.

Twenty-First Annual Report of the New York State Board of Charities to Legislature, February 17, 1892.

This valuable report, in the thoroughness, accuracy and systematic completeness with which it reviews the whole round of charitable and reformatory institutions in this State, both public and private, is only another instance of that kind of practice which long experience makes perfect. We think any one at a glance through its well ordered arrangement may obtain a perfectly clear and satisfactory summary of the whole charitable system of the State, with a definite view of the progress that has been made and the few improvements that still remain to be desired. Like our citizenship, our charities also present to the growing cosmopolitan spirit of the age certain advantages and attrac-

tions which have become practically inconvenient to those who have to bear the burden, and thus require legislation to fit exigencies rather than any accepted theories in regard to the abstract "Rights of Man," the regulation of imported immigration being now annually placed upon a similar footing with the regulation of imported merchandise. In this department of their duty, the State Board has already been able to effect an immense saving to the State, in the matter of the support of "alien paupers."

The Board has been engaged in the compilation of a Directory of all the institutions in the State, which will be sent to the Legislature. The amount of property invested in charitable and reformatory institutions in this State has increased from \$64.432,322 in 1890, to \$72,197.803 in 1891, and their annual expenditure from \$16,349.842 in 1890 to \$17.605,660 in 1891. The objects of this charity, or inmates of these institutions, were in 1890, 70,895, enlarged to 74,773 in 1891, making the per capita cost over \$235. The amount expended in 1880 in these institutions was \$8.482,648, so that as will be seen, the expenditure in eleven years has more than doubled, while the increase in population, as the report states, has been about 19 per cent., but it is a very observable fact that out of the increase of over nine millions, over six millions has been in "institutions under the control of incorporated benevolent associations."

Of the subjects of charity in this State, now 74,773, we find included in the classification of insane, 16.647, thus distributed: In State hospitals, 6.963; New York and Kings County Asylums, 7.374; Alms-houses of other cities and counties, 1,238: Private asylums, 835; insane criminals, 239. The increae for the year has been 625. Under the new law of State care, the county patients will soon be absorbed into the State Hospitals, which are now increased to eight in number, by the erection of the new St. Lawrence Institution near Ogdensburg, and the conversion of the Monroe County Asylum into the Rochester State Hospital. With the present incidence of what promises to be increasing taxation, we presume that New York and Kings Counties, which furnish nearly half of the insane, will sooner or later be glad to come under the general law, if only to bear no more than their proportion of the cost of the whole system; and certainly such a change would be in the interest of humanity as well as the municipalities, by bringing those institutions under a more uniform and efficient management, and freeing them from the inevitable abuses and neglects of their present system of "red-tape." We cordially approve the remarks of the report on this subject, believing that what slight ameliorations have already taken place in those quarters have been due to the Board's investigation and criticisms.

We are glad to see the list of State Hospitals arranged in the chronological order of their foundation, which of course recognizes Utica as the oldest. The numbers under care in each seem to be rapidly approaching a proportionate equality, except in the two former institutions for the chronic insane which still remain largely in excess of the rest. Little inference can be based on the admissions during the past year, on account of the numerous transfers from the county houses, which the Lunacy Commissioners are rightly expediting as fast as possible.

When this work shall be completed, it will be matter of interesting observa-

tion and calculation to watch and determine the annual rate of increase in the "whole number under care" of the class of patients hitherto denominated as "chronic or incurable insane," for which any other word signifying settled, or inveterate, or permanent, as for instance, in "terminal dementia," would answer equally well if preferred. The recoveries or discharges at Willard and Binghamton, which report nearly half the whole number under care in the eight hospitals, show pretty clearly that such an increase of serious magnitude must be counted upon in the future, notwithstanding the large mortuary rate, which does not fall much short of 10 per cent. It is inevitable that the proportion of those "under care" only, as distinguished from those under medical treatment strictly, will in our State Hospitals hereafter very largely preponderate, and very largely reduce the percentages of recoveries on the whole number resident. For this reason, as a matter of truth and justice, we think the percentage of recoveries should be based on the admissions from year to year, if we would know what proportion of the current insanity is cured or curable. The recoveries during the past year have been 560, and the admissions in all the hospitals 2,799, which to our mind is very respectable showing, when the number of transfers from county houses, and from one hospital to another are taken into account.

It is obvious, too, from the large number discharged "not recovered" and "unimproved" (making 497 in all), that more special pains have been taken to enforce the duty of taking care of their own insane upon those perfectly able to do it, or in circumstances that admit of it, in cases not likely to be benefitted by residence in a hospital. In this way the Scotch plan of boarding-out patients of this description is found a practicable and profitable method of preventing an embarrassing accumulation of the quiet and harmless in the public institutions. We say nothing here of averaging the cost of treatment in the medical or hospital part of administration, neither in fact do we wish to make this journal responsible for what we have said in this individual review of a public report. It is an able and suggestive document for any student of the magnificent charitable system of the great State of New York.

W. T. G.

## LETTER FROM FRANCE.

Recent occurrences have called attention anew in our country to the rapid increase of the morphine habit, and to. Progress of Morphinism, Legal Respon-sibility of Morphine Habitués. the mental state of its victims, and to the manner in which we must estimate their responsibility in the criminal acts which they commit. Very recently a man, whose name is honorably known in literature, and who belongs to an excellent family, was accused of extreme cruelty to his very young child. He was arrested, and in the course of the judicial inquiry, it appeared that he was the victim of the morphine habit, and at certain times he appeared as if he was dazed, hence he was then submitted to a medical examina-The physicians who were assigned to this duty were unable to find anything indicating insanity, properly so-called, but they recognized in him a certain defect of intelligence and of the will. Under the circumstances he was found guilty, but it was preferred to moderate the sentence so that he could be placed until cured in an insane asylum. It is a curious fact, but not altogether a novel one, that this man had communicated to his wife his passion for morphine, and that the two indulged together.

Only a short time ago a physician was the unfortunate hero of a frightful drama. One day in a city, in the north of France, an old man, aged seventy, was shot twice with a revolver in the abdomen as he was leaving his home. He fell dead immediately. The murderer, who was arrested at once, was a nephew of the victim, and, as has been stated, a physician, aged thirty-three. At his preliminary examination shortly after, he declared that he had no knowledge of the act. The evidence taken in his behalf showed that he was a morphine habitué, and it was claimed that the loss of memory was genuine, and that we have to do in the case with a veritable lunatic. We do not know yet how this question has been settled.

These facts and many others have raised anew the question of the legal responsibility of morphinomaniaes, and give especial interest to a memoir by Dr. Guimbail in the *Annales d'Hygiène-et de Médévine Légale*.

One of the first statements of the author of this memoir is that morphinomania quickly produces a state of weakness which can be resolved into two principal elements, namely, defect of attention and paralysis of the will. From these start all the later troubles which may develop in the intellectual and moral life.

This weakness tends at once to a veritable obtunding of the moral sense, and in some cases in its complete abolition. In the latter case the subject ceases to be able to distinguish the good from evil, or that which is permissible from that which is not. He fails in his most essential duties either towards society, his family or himself, and his moral vision has for its horizon only the satisfaction of his habitual appetites. Hence he gives himself up freely to theft, immodesty and criminal acts of every kind.

When he has reached this point he may show an absolute loss of free will. The paralyzed volition ceases to be revolted by criminal or vicious tendencies. Where then is his responsibility?

It may be asked first, whether the case of the morphinomaniae is not the same as that of the drunkard, and whether the vicious appetite and habits created in him do not constitute an aggravation of his offences rather than diminish their gravity? In principle, in my opinion, this should be the case; we ought to consider that if the individual by indulgences in morphine has reached a condition in which his moral and intellectual faculties are more or less obliterated, it is his own fault. He was able at the proper time to control himself and to stop; he did not do so, preferring to gratify his vicious appetite. So much the worse for him, he should stand the consequences to which he has voluntarily made himself liable, and to which he has, often with full knowledge of the result, abandoned himself.

Nevertheless, it is well to take into account that this point of view may become inexact by being too rigorous. There is, in fact, a moment when the disease truly takes possession of the unhappy victim of morphine, and makes him a genuine lunatic. Hence he should be treated as an insane person before the law.

Dr. Guimbail insists upon one point that indeed deserves great consideration. It is that while at one given period the morphine habitué can be compared to a drunkard, later he is comparable more especially to a dipsomaniac. The latter, however, is

actually a lunatic, in whom the tendency to drink is the result of a violent and irresistible impulse. This comparison is the more just upon the fact that in certain cases of the morphine habit, the tendency is periodic, and intermitted by longer or shorter periods of abstinence. Nevertheless, the distinction between the attacks is much more marked and easily made than in morphinism. In the latter the desire is ordinarily almost constant.

We cannot here enter into details of all the considerations that arise from the study of the mental state of morphinomaniacs. What concerns us at present, taking the point of view of the responsibility for actions, may be summed up under three principal heads.

In the first place it is necessary to admit that the habitual practice of injection of morphine is not of itself sufficient to cause us to infer irresponsibility. Is it necessary, on the other hand, to go so far as to say that strictly this fact ought to be regarded as an aggravation rather than an extenuation of responsibility? It is my opinion, as I have already stated, but in the application it is necessary to take account of the morbid condition which may be developed.

In cases of prolonged morphine intoxication when the impregnation by the poison has affected the functions of the brain, when it has been well established that there has been intellectual enfeeblement and diminution of the moral sense, the individual should be treated as if weak-minded or an imbecile. Dr. Guimbail thinks that we should consider him as relieved in part of responsibility. I do not agree with him since of the two things, in the one case he is a subject of disease, and then he should be treated as a sane individual ought to be treated.

When a morphinomaniae under a pathologica! impulse due to morphinism has committed a criminal act or misdemeanor, he should be considered as an insane person and declared irresponsible. With still more reason should this be the case when the morphine habit has produced, in the mental condition, so great a disturbance that the individual has lost all control of himself, and exhibits the phenomena of delusion and of insanity properly so-called.

The progress of morphinism gives rise to an unpleasant

reflection. It is sad, indeed, to think that the conquests of science for the good of humanity can be diverted to its injury, and in the case of morphine, that the discovery of so valuable a remedy has brought about the production of a new disease, the more terrible, from the fact that it affects the individual in his higher and more noble qualities in his will and in his intelligence.

The ordinary cerebral lesions, hemorrhages, tumors, and various neoplasms, and any alternations whatever Diagnosis of Incoherent Dementia and may give rise to true mental disorders in which the certain condiweakening of the intellectual faculties habitually tions of predominates. But it sometimes occurs that they Aphasia. present themselves under deceptive conditions, and simulate this or that form of mental disease which does not in reality exist. The diagnosis in these cases is often difficult and vet is important. It is on account of the interest which attaches to such that it appears to me worth while to notice an excellent memoir of Dr. Charpentier, physician of the Bicêtre, on disorders of speech, simulating incoherent dementia.

What is incoherent dementia? It is a variety of chronic mental defects, specially characterized by disorder of speech; the individual thus affected gives utterance to words and phrases that are plainly not in relation with his ideas, or speaks automatically without having, in reality, any ideas to express. The flow of words is sometimes abundant, but it is impossible to extract any precise meaning, preserve any consecutiveness whatever.

There are, however, some patients with circumscribed cerebral affections, notably such as have become aphasic from lesions of the frontal convolutions, and who present only the symptom of aphasia without any accompanying trace of paralysis; who may be misunderstood in this respect and pass for genuine cases of dementia. Nevertheless, with sufficient care and attention one can avoid an error of diagnosis in these cases. An attentive and prolonged examination of their gestures, physiognomy, expression, the changes in color of their countenances, their intonation of sounds and words, their expressions of pleasure or sadness, of attention or of anger, corresponding to the words addressed to them, allow of a proper recognition of their mental condition and the formulating of a diagnosis other than that of dementia.

But it is not merely the disorders of pure aphasia that may give rise to errors of diagnosis, and Dr. Charpentier calls attention to another class of cases in which we may be tempted to believe in a dementia that does not really exist. This is especially the case with the paraphasics, with whom the speech is a mixture of appropriate words and correctly formed phrases, and others lacking all sense or application to the subject in hand. But these are all so intermingled with each other that it is difficult to disentangle them.

One of the patients of whom Dr. Charpentier relates the history, replied to questions with a copious flow of words, some of them sensible, others extravagant, so connected together as to be at first incomprehensible. By studying with care it was seen that the expression of his face was more intelligent than his speech; it was observed, on the other hand, that certain words were repeated over and over again, and that by suppressing these, there could be made out, though sometimes with difficulty, intelligible sentences in which the patient, confined in a lunatic asylum, demanded to be set at liberty, saying that he did not wish to be among the fools, and that he was an honest man. Placed among the working patients he proved very industrious and quite skilful in joiner work. He was, therefore, not a dement, though he was insane, as he had delusions of persecution.

Another patient, likewise tormented with ideas of persecution that gave some trouble in diagnosis, showed a very remarkable speech disorder. To every question he replied with an avalanche of rapidly uttered phrases in a lugubrious tone, and with an emotional disturbance almost to the point of choking, and an accompaniment of various gesticulations. The sentences were composed of words without sense, a mixture in which were adverbs, conjunctions and propositions, with few adjectives and still rarer substantives and verbs. To all this was added a very lively mimicry, but one that did not facilitate its comprehension. The patient evidently thought himself understood, and showed clearly that he understood what he wanted to say. This was still another variety of aphasia simulating incoherent dementia.

The conditions of this kind are evidently interesting for study, since the treatment that ought to be adopted toward those that present them, and who are not true dements, should be altogether different from that which one adopts with individuals who have really fallen into dementia.

The Second Annual Congress of French-speaking Alienists,

Second Annual Congress
of French
August, was a complete success. The attendance
Alienists. was large. The programme was varied and led to
the discussion of interesting questions. The three principal
ones were as follows:

- 1. The role of alcoholism in the etiology of general paralysis.
- 2. The legal responsibility and the sequestration of persecutory insane.
  - 3. The care of epileptics.

The first of these questions was the one that most largely occupied the attention of the members of the Congress,

In the report that he had been deputized to make on the subject, Dr. Rousset concluded that the opinions as to the relations between alcoholism and general paralysis may be reduced to the following principal ones:

- (a.) Alcoholism leads to general paralysis.
- (b.) Alcoholism does not cause general paralysis but a pseudogeneral paralysis.
- (c.) Alcoholism and general paralysis are at first distinct, but the former may lead to the latter.
- (d.) Alcoholism is an occasional cause, and a predisposition is requisite, for the production of general paralysis.

It is to this latter opinion that M. Rousset himself holds.

It appeared from the discussion in which the Congress engaged, that the great majority of the members present rejected the idea of an alcoholic pseudo-paresis. Furthermore it is necessary, first of all, to get together reliable statistics, together with the most thoroughly made observations in which the action of alcohol is clearly evidenced. But who does not perceive how difficult it is to collect such statistics, taking into consideration the difficult conditions of mind in which the various observers studied the cases that were presented to them, and also the environments in which they made their observations? The subject is, therefore, still to be elucidated.

The Third Annual Congress of Mental Medicine will meet at Blois the first Monday in August, 1892.

Toulouse, December, 1891. VICTOR PARANT, M. D.

## NOTES AND COMMENTS.

Daniel Clark, M. D.—Dr. Clark, whose portrait appears in this issue of the Journal, is the President of the Association of Medical Superintendents of American Institutions for the Insane. He was born August 29, 1835, at Grantown, Inverness-shire, Scotland.

At an early age he came to Canada with his parents and lived with them at Port Dover, on the north shore of Lake Erie, in the Province of Ontario. When only a mere lad he went to California in 1850, and remained there for nearly two years. The journey occupied from three to four months, and was full of hardships and adventure.

On his return to Canada he attended a grammar school near the old homestead, to prepare himself for a university course of study. In due time he commenced his college and university curriculum in the city of Toronto. Being an apt and a diligent student he carried off a number of bursaries, especially in classical and mental philosophy.

After finishing his medical studies he graduated in medicine in 1858, at the University of Victoria. The University of Toronto also bestowed on him the ad eundem degree of M. D. In 1870 he was elected by his confrères as a member of the Medical Council for four years. In 1874 he was re-elected for a second term. In 1876 and 1877 he was elected President of the Medical Council and College of Physicians and Surgeons, and was re-elected for 1878 to this honorable position. He afterwards represented Albert University in the Medical Council and in the College of Physicians and Surgeons. He was, for several years, examiner in chemistry for that body, and was at the same time examiner in jurisprudence and obstetrics for the University of Toronto. At present he is Professor of Psychology and Mental Diseases in the Medical Faculty of that University. has been president of a number of medical associations, notably those of the city of Toronto and the Province of Ontario, and as already stated is at present President of the Association of Medical Superintendents of American Institutions for the Insane, having been elected at Washington, D. C., in May, 1891. He

has been, for a number of years, president of a city literary club, which has been composed largely of clergymen, physicians, merchants, bankers, professors and politicians. He was president, in 1890 and 1891, of "The St. Andrew's Society of Toronto." This is a large and influential chartered corporation of Scottish citizens, whose object is to dispense charity among the needy of their countrymen.

In 1865 he published "Pen Photographs." It consisted of sketches of noted men and historic places seen and visited by the author. He is also the author of numerous pamphlets, monographs and reviews.

Being naturally of a critical turn of mind, he is fond of polemical subjects, and in a logical spirit endeavors to look at both sides of every subject. He is a hard hitter in hot controversy, but is generous towards an opponent. Sarcasm, blended with humor, is a characteristic of himself and his countrymen. He is also an honorary member of the Canadian Press Association.

When a vacancy occurred in the superintendency of the Asylum for the Insane at Toronto, in 1875, by the resignation of Dr. Gowan, who had but lately succeeded the venerable Dr. Workman, the government was memorialized by the Medical Council to select for the position the subject of this sketch, who was then president of that body. The government made the appointment, and Dr. Clark has remained in this position of trust ever since. He is frequently called upon to give evidence in courts of law, especially when the plea of insanity is set up.

In his medical practice and treatment of the insane he is conservative, and is not easily inveigled into devious ways by fads which may arise even among members of his own profession.

It should have been mentioned that after graduating in Canada Dr. Clark spent the best part of two years in Europe. One winter was spent in Edinburgh University and the Royal Infirmary. The balance of the time was spent in the hospitals of London and Paris.

THE PAN-AMERICAN MEDICAL CONGRESS will be held in the city of Washington, D. C., September 5, 6, 7, 8, 1893. The following will be considered the constituent countries of the

Congress: Argentine Republic, Bolivia, Brazil, British North America, British West Indies, (including B. Honduras,) Chili, Honduras (Sp.), Mexico, Nicaragua, Paraguay, Peru, Salvador, Colombia, Costa Rica, Ecuador, Guatemala, Haiti, Hawaiian Islands, Santo Domingo, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch and French West Indies. There will be a Section of Diseases of the Mind and Nervous System. The languages of the Congress will be Spanish, French, Portuguese and English.

THE NEW JERSEY ASYLUMS AGAIN.—The State of New Jersey continues its drastic experiments with the hospitals of the State. According to a recent enactment the general management and control of the asylums at Morris Plains and Trenton is vested in one State board of managers, consisting of seven persons, appointed by the governor for the period of five years. Here is a sample section of the new law:

7. And be it enacted, that each rule or regulation, and each alteration or repeal of preëxisting rules or regulations, which shall be proposed to be made and adopted under the next preceding section of this act, shall be submitted in writing to the board of managers aforesaid, and if adopted by a majority of the whole number of such board shall then be submitted in writing to the Governor of this State for his approval; and no rule or regulation, nor alteration or repeal of preëxisting rules or regulations, shall take effect without the same is approved in writing by the Governor; all rules, regulations, alterations and repeals aforesaid, approved by the Governor as aforesaid, shall be deposited in the office of the Secretary of State, and certified copies thereof, under the seal of said secretary, shall be plenary proof thereof in all the courts of this State.

It is also provided that the wardens of these hospitals shall ""make contracts with all attendants, assistants and employés," which probably means that such persons shall be employed and discharged by said wardens.

Dr. H. C. Harris has resigned as medical director at Morris Plains, while Dr. Spratling has resigned as first assistant to accept the position of assistant to the Chair of Diseases of the Mind and Nervous System at the Post-Graduate School, New York City. His resignation will take effect August first, next.

It does not appear that this new law is sufficiently broad in its provisions to attract the services of a medical

director of "national reputation," which, it will be remembered, was to be the prime prerequisite to appointment when the dual system was introduced, with a flourish of trumpets, a few years ago.

It is fair to say that the first act of the new board, at Morris Plains, was commendable. This was the removal of the warden, to whose scheming the departure of Dr. Buttolph from the service and the establishment of the dual system are largely attributable. Certainly, it was this man's selfish, narrow and unintelligent management, and his utter failure to comprehend in the remotest degree the real objects of the institution and the relation of the medical department thereto that produced most of the friction. It is said that the present warden is a different man from his predecessor. While the New Jersey dual system is not an ideal one, we believe that with a sensible and intelligent warden good work could be accomplished in spite of it.

DEATH OF DR. DRAPER.—The death of Dr. Draper, Superintendent of the Asylum at Brattleboro, Vermont, from pneumonia, March 17th, was a severe shock to his friends. An appropriate memorial sketch of his life from the pen of Dr. Stearns, of Hartford, Conn., will appear in the July number of the Journal.

A CORRECTION.—In our January issue, (p. 427,) the appointment of Dr. T. H. Kellogg was announced as "resident physician at Sanford Hall." This is an error. Dr. Kellogg was appointed "physician in charge," Dr. Barstow still holding the position of resident physician at Sanford Hall, as he has done for thirty years past.

DR. CHARLES G. WAGNER, formerly first assistant physician of the Utica State Hospital, has been appointed superintendent of the Binghamton State Hospital, vice Dr. T. S. Armstrong, deceased.

Dr. B. D. Evans, first assistant physician at the Maryland Hospital for the Insane, has been appointed superintendent of the Maryland Asylum and Training School for the Feeble-Minded.

- Dr. Henry R. Stedman, of Roslindale, Mass., has been appointed a trustee of the Taunton Lunatic Hospital.
- Dr. W. E. Sylvester has resigned the superintendency of the Vermont State Asylum for the Insane.
- Dr. H. M. BANNISTER, one of the collaborators of this Jour-NAL, has resigned as first assistant physician of the Illinois Eastern Asylum, Kankakee. He will remain at his old post till June 1st.
- Dr. N. Emmons Paine has resigned the superintendency of the Westboro Asylum, Mass., to open a private hospital for the insane at West Newton, Mass. He is succeeded by Dr. George S. Adams, formerly first assistant physician.

### CORRESPONDENCE.

THE CONVERSION OF THE STATE ASYLUM FOR INSANE CRIMINALS AT AUBURN INTO A STATE HOSPITAL FOR INSANE.

—COMMUNICATIONS FROM THE STATE COMMISSION IN LUNACY AND THE PRESIDENT OF THE STATE BOARD OF CHARITIES.

OFFICE OF THE STATE COMMISSION IN LUNACY,

ALBANY, March 24, 1891.

Dr. G. Alder Blumer, Editor of the American Journal of Insanity, Utica State Hospital, Utica, N. Y.

DEAR SIR: I send you herewith a copy of a circular letter addressed to the Finance Committee, recommending the passage of the bill providing that the Auburn Asylum for Insane Criminals be transferred into a State Hospital, in order that it may be inserted in the forthcoming number of the JOURNAL OF INSANITY.

I am, very respectfully yours,

T. E. McGarr, Secretary.

STATE OF NEW YORK-STATE COMMISSION IN LUNACY.

ALBANY, March 21, 1892.

To the Honorable the Finance Committee of the Senate:

Gentlemen—Impelled by a strong sense of public duty, we take the liberty to briefly address you on behalf of the bill to convert the State Asylum for Insane Criminals at Auburn into a State Hospital for Insane. Our warrant for taking this liberty, if it be one, is found in \$10 of Chapter 126, Laws of 1890, commonly known as the State Care Act. That section reads as follows: "\$10. The State Commission in Lunacy, whenever it shall deem it necessary and expedient, by reason of overcrowding, or in order to prevent the same, shall, in its annual report to the Governor, recommend the erection of such additional buildings on the grounds of any or all State asylums then existing as shall in the judgment of said commission provide sufficient accommodations for the immediate prospective wants of the insane of this State; or, if said Commission deem it more expedient, it shall recommend the establishment of another State asylum or asylums in such parts of the State as in its judgment will best meet the requirements of the pauper and indigent insane."

Believing that the time has come when, pursuant to this section, the Commission ought to make its views concerning the above bill more fully known than was practicable in the brief hearing had upon the bill on March 10th, we call your attention to the following statement:

Vol. XLVIII-No. IV-H.

The reasons which make for the prompt report and early passage of the bill are:

The present buildings and grounds will be vacated within a few weeks.

They are in excellent order and condition, are completely furnished and equipped, and are ready for immediate use.

They will easily and comfortably accommodate 250 patients.

This accommodation for 250 patients at Auburn, when the criminal lunatics shall have been removed to Matteawan, was an essential part of the scheme on which the act (chapter 91, Laws of 1891), appropriating \$454,850 to carry out the State Care Act of 1890 rested for its successful accomplishment.

Had not this accommodation for 250 patients at Auburn been treated as a certainty of the future—it only failed of passage last year by reason of the dead-lock—the Commission in Lunacy would not have certified that in its judgment 827 inmates of county poor-houses would be all for whom the act of 1891 needed to provide accommodation, but it would have been obliged to raise the number to 1,077, which would have involved an increase of the appropriation for new buildings from \$454,850 to \$592,850.

There was a distinct understanding with the Finance Committee, your predecessors, that by using the Auburn plant, as proposed in this bill, the number for whom accommodations were needed would be reduced to 827, and the cost of such accommodation would be kept down to \$454.850.

Upon this understanding the Commission in Lunacy accepted the responsibility for carrying the State Care Act into full fruition, agreeing that, with 250 patients provided for at Auburn, it would, for the further sum of \$454,850, erect good buildings and completely furnish and equip them to accommodate the remaining 827 patients which, according to its calculation, would be left in county poor-houses.

The necessity will arise, should this bill fail, to appropriate \$137,500 for erecting and equipping other buildings on the grounds of one or more of the present State hospitals to be selected, in order to house the 250 inmates of county poor-houses which it was intended to house at Auburn.

If this sum of \$137,500 were appropriated by the Legislature at its present session, it is not at all probable that the hospital or hospitals could be selected and the buildings constructed and furnished before the following winter or spring.

The inevitable effect of this delay would be to postpone the execution of the State Care Act for another year, thereby unnecessarily disappointing the just expectation and desire of the people of the State, and virtually breaking the pledge made to them that the wretched insane inmates of county poor-houses should be removed to State hospitals as soon as the needed accommodations for them could be provided.

The Commission in Lunaey will disclaim any responsibility for these results, should they ensue. It has for two years advocated the proposed use of the Auburn plant as soon as such use could be had, and its published recommendations to that effect have till recently stood unchallenged and unobjected to. It pressed upon the Finance Committee in 1891 the point that without such use of the Auburn plant, it could not provide for 250 patients who would need to be removed from county poor-houses, and its consent to be charged

with the fulfillment of the State Care Act was conditioned upon the enactment of the Auburn bill in substantially its present shape. It respectfully insists that the present Finance Committee should clearly comprehend the responsibility which will fall upon it, should the bill be reported unfavorably or be suffered to fail by inaction.

That responsibility goes the serious length of keeping in county poor-houses 250 of the hapless unfortunates now detained therein for at least a full year longer than, by the passage of this bill, could be avoided. It also involves the abandonment to idleness and decay for at least one year of property which has cost the State in round numbers a quarter million dollars, and which with its furniture and equipment valued at \$18,000, can now be beneficially utilized without costing a single dollar. It also involves an eventual expenditure of \$137,500 for other buildings, while these good and suitable buildings at Auburn are lying idle.

The only objection that has been urged against the bill—at least, the only one that seems worthy of attention—is an overstrained sentiment concerning the proximity to the hospital grounds of the Auburn State Prison. Sentiment is sometimes a powerful factor in human affairs, and it is entitled to respect when kept within the line of its proper exercise; but sentiment, to be effective for any real good, must be founded on truth and reason. The sentiment which, claiming to be actuated by the loftiest principles of philanthropy, would prefer to leave 250 wretched human beings, bereft of reason and unable to help themselves, within the cheerless surroundings of a county poor-house rather than transfer them to comfortable quarters in wellfurnished, well-lighted, well-ventilated and well-warmed buildings, amid elegant grounds, simply because they might in some instances become cognizant of the fact that they were located near a prison, is a perversion of the proper sense of the word sentiment, and deserves to be regarded as merely maudlin and miserable sentimentality. In our judgment, there is nothing in this objection which ought to militate against the enactment of the bill. We. therefore, earnestly ask that you favorably consider and report the bill.

Respectfully yours,

CARLOS F. MACDONALD, GOODWIN BROWN, HENRY A. REEVES.

# COMMUNICATION FROM THE PRESIDENT OF THE STATE BOARD OF CHARITIES.

ROCHESTER, March 30, 1892.

G. Alder Blumer, M. D., Editor of the American Journal of Insanity.

MY DEAR SIR—I acknowledge the receipt of the copy of the communication from the Lunacy Commission, to the Finance Committee of the Senate, dated March 21st, with the note from them to you calling for its publication in the JOURNAL OF INSANITY.

Of course, there should be no ex parte publication. The communication itself having been ex parte, after the public hearing, without notice to me, justifies an ex parte communication from me dated March 29th. But, as I have said, there should be no ex parte publication.

I enclose a copy of my said communication of the 29th inst., and a printed report of the said public hearing, both of which I ask shall appear in the JOURNAL, if the requirement of the Commission for publication shall be complied with.

Very respectfully yours,

OSCAR CRAIG,

President of the State Board of Charities, and ex-officio Member of the Districting Board.

ALBANY, March 29, 1892.

To the Members of the Finance Committee of the Senate:

In the matter of the bill for a State Hospital at Auburn, the Chairman of the board for districting the State with reference to State Hospitals, convened its members in a meeting in New York, on the 26th, which was adjourned to the 28th inst.

The three members of the Lunacy Commission, who are *ex-officio* members of that board, proposed that the bill should be amended so as to make the Auburn State Hospital temporary.

Believing that a temporary hospital would eventually result in a permanent hospital at Auburn, unless foreclosed, I required as a condition precedent that all the members of the districting board should declare against making such hospital permanent, before I should consent to a temporary hospital.

I therefore introduced the following resolution, viz.:

Resolved, That in view of the temporary expedient suggested in the proposed amendment to the bill relating to a State Hospital at Auburn, whereby such hospital would be made provisional and temporary only, the same will, if adopted by the Legislature and Governor, remove the necessity, if any, of

a permanent State Hospital there; and that in the event of such adoption, we deem that it will be unwise to make such hospital permanent, or to establish any permanent State hospital within any county adjoining the county in which Willard Asylum is located.

When the vote on this resolution was taken, only two members of the Lunacy Commission were present, of whom Mr. Brown voted in the affirmative, and Dr. MacDonald voted in the negative.

This negative vote not only, but also other advices which I have, satisfy me that the creation of such temporary hospital would be the beginning of an evolution of the institution into a permanent hospital.

I therefore voted in the negative on a resolution amending the passage of an amended act establishing such temporary hospital.

For the foregoing reasons I justify not only my negative vote, but my present attitude, which is one of uncompromising opposition to the passage of any bill creating any hospital at Auburn, no matter how provisional or temporary it may be in its terms. Even if the said resolution could now be passed unanimously by the Lunacy Commission, my present conviction would lead me to oppose such a bill.

I have, therefore, requested the chairman of your committee to grant me a further hearing before any favorable action on the bill, however amended; to which he has graciously consented.

With great respect, I am, your obedient servant,
OSCAR CRAIG,
President of the State Board of Charities.

ARGUMENT BEFORE THE SENATE FINANCE COMMITTEE MARCH 10, 1892, ON SENATE BILL NO. 340, ENTITLED "AN ACT TO ESTABLISH AND ORGANIZE THE AUBURN STATE HOSPITAL, AND MAKING AN APPROPRIATION FOR THE MAINTENANCE OF SAID HOSPITAL."

### ARGUMENT OF DR. CARLOS F. MACDONALD.

(Dr. MacDonald had started his argument before the stenographer came in.)
For the last two years, the State Commission in Lunacy, as I say, has recommended, in its reports to the Legislature, the utilizing of the buildings at Auburn, now about to be vacated by the State Asylum for Insane Criminals.

Of course, the projection and location of a new institution there if the State had to go to the expense of establishing a new plant, would not be advocated by any one. But the fact is that there is a property there, worth about \$240,000 or \$250,000, and with furniture and equipment all complete, ready for immediate occupancy, valued at about \$40,000.

This bill provides for the creation of the Auburn State Hospital, at a cost of about \$30,000 for maintenance, to establish the institution and to start it off as established. It would have no source of income at the beginning, and it would have to have funds.

The furniture is there and is suitable for the purpose; it was left there in contemplation of a bill of this kind. Otherwise it would have been largely removed to the new asylum at Matteawan.

It is very inportant to pass this bill, so as to enable us to carry out the State Care Act. The grounds at Auburn are very limited, and as a former superintendent of that institution, and subsequently as a Commissioner, I have reported in regard to the inadvisability of that location; and as I say, nobody would suggest to the Legislature to put a new plant there. But, having this property, that would take care of at least two hundred and fifty (250) of the patients now in the poor-houses of the State, in a condition of wretchedness and squalor and filth, we advocate it as a step in the direction of State care.

I want to say that the buildings and grounds at Auburn were not well adapted to the care of the criminal insane. It was not strong enough; it was badly located with reference to escapes. The wall is not nearly as high as the prison wall. While it adjoins, on one side, the prison property, it is separated by a high wall; it adjoins another street, and is entirely separated from the prison,—absolutely. The conditions there, compared with what the insane poor now have in the county houses (there being about one thousand and two hundred in round numbers) would be palatial; and the Commission in Lunacy feels that, with the opportunity of utilizing these conditions at Auburn, as soon as the Criminal Asylum is moved to Matteawan (as it expects to do next month), it will enable us, with the buildings now in process of erection at the State Hospitals, to carry into effect, by the end of this year, the State Care Act; so that we will be able to say that the State of New York has no more insane in her poor-houses.

To that extent the State Commission in Lunacy is interested in this matter. We have no personal interest in the matter beyond that.

My associate Commissioners are here, and Dr. Allison, the Superintendent of the institution at Auburn, is also here, and will say a word in behalf of the bill, if it is necessary.

#### ARGUMENT BY DR. H. E. ALLISON.

Gentlemen: I was not prepared to come before this committee to-day, not knowing that there was to be a hearing on this subject. But I would say, as Dr. MacDonald has already stated, that the State Commission in Lunacy is in favor of this measure, and has been for two years, and has so recommended in its reports to the Legislature.

The Superintendent of State Prisons is also in favor of this conversion of the asylum into a State Hospital for the insane.

It is not suitable for any other purpose. It was built some years ago (thirty years ago, a portion of it) and extended twenty years ago, as a lunatic asylum; and it has been occupied as such always. It was built at first to accommodate the insane convicts of the State, from the State penitentiaries and the State prisons. In 1869, the scope of the act was enlarged, so that prisoners from the courts could be sent there; so that now our population consists of a mixed class of inmates. About forty (40) per cent. of them come from the courts, and belong to a very respectable condition of society, and are unfortunate by means of their crimes, and have to be put in a place of security.

It is not strong enough for a prison. The walls are about eleven (11) feet high. The windows have to be screwed down, and we have no way of getting ventilation except by lowering them from the top. It is not suitable for a prison, but for an ordinary asylum for the insane. The State asylum at Utica, the State asylum at Willard, the State asylum at Poughkeepsie, or at Ogdensburg or Buffalo, would not be suitable for the purposes of a prison. Ordinary lunatics do not attempt to escape, but prisoners do, and consequently we need a strong structure to hold convicts and prisoners sent there by the courts.

Senator McCarren: You propose to make it a non-criminal insane institution?

Dr. Allison: It is not strong enough for an institution of that character. Senator McCarren: I asked if you propose to make it a non-criminal insane institution?

Dr. Allison: We propose to make it a State hospital for the insane, non-criminal.

Now those asylums in the State which have been converted from other uses to the purposes of State hospitals, have always proved the most economical in the way of management and attained a high standard. The inebriate asylum at Binghamton was converted for the purposes of a State hospital; Willard asylum was converted into a State hospital; and if we convert this asylum at Auburn into a State hospital, we can do it at a very small expense, and furnish proper accommodations for the insane of that district.

I have here some views of the institution, showing the general appearance of the buildings from the front; and also some smaller pictures, showing the grounds about the buildings, and the interior of the various wards, which will indicate to you the character of the asylum in general,—showing that it is in every respect similar to the other asylums of the State.

The asylum is in no way connected with the prison. It is on an entirely different street; and it is quite a ways removed from the prison property; and no part of the prison premises is visible from the asylum grounds. There is a high wall separating the two, and cutting off the view entirely.

### ARGUMENT OF COMMISSIONER GOODWIN BROWN.

I just want to say one word. In 1890, when we estimated the number of patients for which accommodations would have to be provided, the old State Asylum for Insane Criminals was estimated as a part of the system, in order to save accommodations for two hundred and fifty (250) patients. You will recollect that the State Care Act provided that these various buildings should be provided, including furniture and fixtures, at an expense of not exceeding \$550 per capita. That would save, in round numbers, \$137,000.

Again, the State Commission in Lunacy feels that it would be unwise, as long as this condition exists, to throw this over, and ask for an appropriation of \$137,500. That is the point of this matter. If the Legislature is willing to appropriate that sum, we may throw that over. But the State Care Aet cannot be carried out unless this institution is used. We have used every available bed in the State, and we lack two hundred and fifty (250). This has been included in the estimate made for the last two years. They cannot be removed out of the poor-houses unless this bill is passed, unless the Legislature appropriates \$137,000 for new buildings elsewhere. This will accommodate two hundred and fifty, and it will be available at once.

Senator——: What are you going to do with the present inmates?

Mr. Brown: They are going to be taken to the new asylum at Matteawan, on the 1st of April. Every thing will be left at Auburn: even the knives and forks and tables and chairs will be left in the institution; and I would be willing that any member of this committee should go there, and I will show them that this is one of the most valuable grounds in the State; it is beautiful; there is nothing prison-like about it. There is a wall between it and the prison thirty (30) feet high and five (5) feet thick. There are eight or nine acres of land.

We will leave it to the committee to say whether you will give us \$137,000, or turn over this property to us. Of course, personally, we feel no interest in it, but we cannot move the insane from the poor-houses unless we have this institution or the appropriation I mentioned.

ARGUMENT OF PRESIDENT OSCAR CRAIG, IN OPPOSITION TO THE BILL.

Mr. Chairman: I shall endeavor to be short, though I have some statistics-

to present.

I wish to say in advance that I regret extremely that there should be any difference of opinion between my friend, the chairman of the Lunacy Commission, whose opinion I esteem so highly, with other members who have spoken here, and myself. But I do not feel any delicacy about it, because really we must expect differences of opinion on important matters.

The Lunacy Commission have recommended this measure, and the Governor of the State often recommends measures to the Legislature; but the Legislature does not think it depreciates the Governor or disparages his functions by neglecting to carry out his recommendations; and one house of the Legislature does not criticise the other because they do not agree.

It is true that the statute does impose upon the Lunacy Commission the duty of making certain recommendations; but I will show what the statute does say upon that subject. The State Care Act says that "the Lunacy Commission shall provide for the pauper and indigent insane of the district in which each State asylum is situated; should the existing acommodations not be sufficient for this purpose, there shall be erected on the grounds of such asylum a sufficient number of buildings, of a moderate size, each being designed to accommodate not less than ten nor more than one hundred and fifty patients. It shall be the duty of the managers or trustees of each State asylum," etc.

Now the intent and the purview of this act is, to provide for the chronic insane that were formerly confined in county asylums, on the grounds of existing State hospitals, in cottage buildings. And, while I pay due respect to the Lunacy Commission, in making this recommendation, I think that they have not kept themselves strictly within the spirit of the law.

I wish to say further that, as president of the State Board of Charities, I am ex-officio a member of the districting board, which consists of the Lunacy Commission, the president of the State Board of Charities, and the Comptroller.

Now the act creating this board, in section 1, provides that the board shall consist as I have stated, and that "said board is hereby empowered and directed to proceed, without unnecessary delay, to define the boundaries of the several districts into which the State shall be divided; provided, however, that no county shall be divided in such classification, and that not more than one of the existing State asylums be embraced in any one district."

This proposed asylum to be created, if this bill passes, is in an existing district, which now contains the largest asylum in the State and in an adjoining county. I will say more on that subject. Now I want to refer.

Senator McCarren: What asylum?

Mr. Craig: The Willard, with a capacity of two thousand. That is in Seneca county, and this is in Cayuga county—adjoining counties.

Mr. Brown: If this bill were passed, the law also provides that the State shall be re-districted. It would be immaterial.

Mr. Craig: I shall say more on that subject. It would require to be redistricted.

That introduces me to the first point of my statement and my argument (I may as well make the argument as I go along with the statement). Now I state, that there are in the central part of the State of New York a great preponderance of hospitals for the insane, as will be apparent immediately upon an examination of the map which I have had marked, showing the present asylum districts. The exterior blue lines show the confines of the State. The red lines show the asylum districts. The red stars show the location of the present asylums. Here is the Buffalo State Hospital. Here is the Utica State Hospital; there is the Willard State Hospital with a normal population of two thousand (twenty-two hundred now); there is the Binghamton State Hospital with a population of twelve hundred. Then on the eastern part, is the Middletown State Hospital and the Poughkeepsie State Hospital, and up here north, is the Ogdensburg or St. Lawrence State Hospital. The blue star is the proposed new hospital at Auburn.

Now the largest two State institutions are Binghamton and Willard. Binghamton with a normal capacity of 1,200, and Willard with a normal capacity of 2,000. Only two counties south-east of the proposed new hospital at Auburn is Binghamton State Hospital, with a capacity of 1,200; only one county the adjoining county south-west, is Willard State Hospital, with the normal population of 2,000. Only two counties west, is Rochester State Hospital. Only two counties east, is the first asylum in the State, the famous Utica State Hospital.

You see, gentlemen, that these districts already give an undue proportion of hospitals in the central portion of the State.

Moreover New York and Kings counties are not included in the hospital districts, because they are excepted under the State Care Act, with the privilege, however, to elect to come under its operation. There is an agitation now going on in New York city; a committee has been appointed by the mayor to report. If they should report favorably and they should come under State care, you see that the disparity would be greatly increased.

Now I want to present some statistics with regard to Willard State Hospital, with a population of over 2,000, only one county from this proposed asylum—the adjacent county. The Willard State Hospital district includes the counties of Allegany, Cayuga, Chemung, Livingston, Ontario, Schuyler, Seneca, Steuben, Tompkins, Wayne and Yates. On October 1, 1891, there were 2,070 patients in that hospital, and of those but 726 were from counties of the present hospital district. You see the bearing of the point, gentlemen.

Senator McCarren: How many can Willard accommodate?

1.027

Mr. Craig: The normal capacity is about 2,000. It has about 2,200 now, I believe. Of the remaining number, 279 were from the Utica district; 40 from the Hudson River district; 196 from the Buffalo district; 139 from the Middletown district: 77 from the Binghamton district: 196 from the St. Lawrence district; 19 from the Rochester district; and 37 were without settlement in any county.

Now I proceed. At the same time there were in other State hospitals patients from the Willard district as follows:

In the Utica State Hospital	
In the Hudson River State Hospital	
In the Buffalo State Hospital	
In the Middletown State Hospital	
In the Binghamton State Hospital 83	
In the St. Lawrence State Hospital	
In the Rochester State Hospital	
Total	
And in the county poor-houses in the district	
This makes the number of insane belonging to the district, exclusive of the criminal insane and those in private asylums, as follows:	
In the Willard State Hospital	
Other State Hospitals	
In the poor-houses of the district	

Thus you see, gentlemen, that when by deaths and discharges, the Willard Hospital is left to provide for the pauper insane of its own district only, it has quite double the required accommodation.

In the poor-houses of the district.....

Aggregate number. .....

Senator ERWIN: That is in this district?

Mr. Craig; That is in this district, which has an asylum with a costly plant and with a normal capacity of 2,000.

Mr. Brown: You are well aware that the statute provides for entire flexibility, that these districts may be changed from time to time?

Mr. CRAIG: That is true.

Mr. Brown: You should also state that there could not be a district big enough for this Willard Hospital. And Binghamton is the same. And the State Care Act very wisely provided for a system of transfers. Take the St. Lawrence State Hospital, when it is completed in a year or two it will accommodate 1,500 patients; and it cannot be possible to give it a district large enough without infringing on some of the others. Therefore, the State Care Act provides that inmates may be transferred so as to equalize the population; and when the State Care Act buildings are completed that course will be pursued.

Mr. Craig: The districting board consists of the Commission in Lunacy, the president of the State Board of Charities and the Comptroller. I am very glad that Mr. Brown interrupted me (and I hope the gentleman will interrupt me) because we have here the statement by him that it would be hardly possible to create a district large enough to correspond with the normal capacity of the Willard Asylum. The argument is, therefore, brief and to the point—Why create another hospital in the adjacent county? I could drop the argument right there. That is really the point of my argument.

Senator McCarren: What use would you suggest that these buildings be put to?

Mr. Craig: I will come to that in a moment. I want to demonstrate that it is not for the permanent advantage of the insane that this hospital should be created as a permanent hospital.

Senator——: You think the hospital should be constructed further down the river, toward New York.

Mr. Craig: Well, we are not called upon to indicate to-day perhaps. I do think so; but I hope to show that, for the insane that the Commission expects to accommodate in these particular buildings, there can be temporary accommodations made by a very simple act to be passed by this Legislature, and thus the whole subject can come up and be debated and settled.

The gentleman who last spoke (the legal member of the Lunacy Commission,) made a statement of facts; he stated that, in his opinion, this opposition was a mere matter of sentiment. I want to say, gentlemen, that sentiment is a pretty powerful thing in this world. The parish priest, the minister of the gospel in caring for souls, act under sentiment. You act continually under sentiment as members of this Legislature. The very measure which is proposed by the Commission is a matter of sentiment. It comes under the paternalism of the government. The father of the family in training his children is actuated by sentiment. Say what we will, all these measures that are designed for the benefit of the dependent classes of any sort whatever, imply paternalism in the government. I undertake to say, gentlemen, that all the reforms of the present day, in penology, in the care of convicts and criminals, and all the reforms of the present age in the protection of the poor and in the prevention of pauperism, are matters of pure sentiment.

Let me illustrate. In the old times, we sent men to State prison, and we didn't care to reform them; we didn't think they could be reformed. They came out of prison and very soon went back again—what we call recidivous criminals—continually in the prison. It was a mere matter of sentiment, gentlemen, that came in and introduced that reform.

Senator McCarren: Is not that more humanity than sentiment?

Mr. Craig: Yes, sir, both; it is humane sentiment. This State Care Act is a matter of sentiment, and I do not concede to any gentleman, to any member of this Commission, or to the honored and respected Superintendent of the Insane Asylum for Criminals, any precedence over me in my earnest endeavor to secure the passage of the State Care Act. The members of this committee know it—the chairman, Senator Erwin and others. I don't say that my efforts were as valuable as some of the others; but I say that I will not yield precedence in earnestness of endeavor and in persistence to secure the State Care Act. And I say, gentlemen, that my heart is in it now as it never was before.

So with reference to criminals, with reference to insane and with reference to all the reforms, they have been pure matters of sentiment.

Thus I say with reference to paupers and the poor, it is not very long ago comparatively, that we encouraged pauperism. Every thing that we did, by public gifts or individual gifts, and by our whole treatment of the poor, increased and encouraged pauperism. Now what do we do? We diminish pauperism by what we call sentiment. We try to cultivate in the breast of every poor family the notion, the idea, the sentiment of independence; that it is a disgrace to live upon public or private charity if it can be prevented. It is a disgrace to be associated with prisons or poor-houses.

This introduces me immediately to the subject, gentlemen. I acknowledge that it is a matter of sentiment; and I say that the poor insane of this State should be encouraged in their idea, in their feeling, in their sentiment (for sentiment is an idea informed with feeling—thought alive with emotion:) they should be encouraged in the sentiment to be kept clear of all associations with prisons and all associations with poor-houses.

Now what is the association with the prison? I have a rough sketch, that I have just drawn; there is the prison fronting on one street, around which is a sentry wall, a high wall. There is the dividing line between the prison and the present asylum for convicts; and there is the opening to the prison. From the station of the Central railroad, very near, a few rods off, you come immediately up to this door; you cannot go around without passingth s door of the prison; you pass this street and turn at right angles and you pass along the wall of the prison and you come to this dividing line.

Let me ask, Dr. Allison, is not the wall between the prison and the asylum the highest wall on the ground?

Dr. Allison; Yes, sir.

Mr. CRAIG: It is a sentry wall?

Dr. Allison: There are two sentries, one at each corner.

Mr. Craig: Would there not be always two sentries with loaded muskets in full view of the people in the establishment?

Dr. Allison: Not always. There would at times.

Mr. Craig: They could see these sentries with loaded muskets very often? Dr. Allison: From two wards and a portion of the grounds; from five wards they could not see them.

Mr. Craig: I want to say further that the wall in front of the present asylum is but a continuation of the wall of the prison on the street, and in no respect differs from it except that it is lower and thinner.

Now I have stated facts enough to show, I think, that the impression that this asylum is in no way immediately connected with the prison is a mistake. Just that fact, then, that you can come from the Central station to the door of the asylum only by going past the door or the gate of the prison, and going along that high wall, with sentries on the wall, and then coming to the wall of the asylum, from which, or from the grounds of which and two wards of which, you can see the sentries with loaded muskets on the wall—

Dr. Allison: That is not wholly true, because from the southern section of the Central road you don't come that way.

Mr. Craig: Based on the facts which I have stated, I assert as a matter of feeling, and therefore a matter of sentiment, that to compel the poor insane to come to this asylum with its present relations to the prison, would be an inhumanity of an extreme sort. That is my opinion and my sentiment.

The argument refers not only to the insane, but to their families, who should be encouraged to recoil from the past associations and the present relations of the prison, and from the immurement of their relations and friends within sentried walls with such prison associations and relations.

I shall not take up your time further on this branch of the subject, as Mr. Letchworth's memorial addressed to the Legislature is convincing and conclusive against compelling the honest poor of Cayuga county, if insane, to be domiciled in this building heretofore reserved for convicts and criminals.

Senator : Give us your idea as to what it should be used for.

Mr. CRAIG: I say it would be good for a weman's prison.

Senator Cantor: Are there not a number of women in the penitentiaries somewhere that could be sent to this institution?

Mr. Craig: The law could be amended, permitting women to be sent to prison, as well as to penitentiaries, and should be so amended.

Senator : Not to apply to those who have already been sentenced; it could apply to those sentenced in the future.

Mr. Craig: That is a measure relating to procedure perhaps, not a matter of right.

Senator: We could not do that by a legislative act. It would be void by the Constitution, which says that you shall not pass any ex post facto law. The women all have to be sent to the penitentiary.

Senator Cantor: A woman who is simply sent to a penitentiary, without designating it, could be transferred; but a designated institution probably she could not be transferred from.

Senator Hunter: May I interrupt you?

Mr. CRAIG: Certainly.

Senator Hunter: I see the drift of Mr. Craig's argument, and to a very large extent I agree with him personally; but the point with me is just this: Here is that property that belongs to the State; the State needs just such accommodation for its unfortunate wards, and needs it now above all times; there is not any thing to prevent in the future the Legislature that makes this hospital or asylum or whatever you please to call it, it can make it something else in the future, if it is no longer necessary.

Mr. CRAIG: If you establish a hospital there, it will always be there.

Senator Hunter: I don't understand that that is the expectation, that it is to be increased in any way at all; and I don't understand that it is the hope of the people there that it is to be added to. It would be almost impossible to add to the grounds. I understand it to be merely an emergency act, for the present necessities. I say frankly that I am in favor, or was last winter in favor of making it a woman's prison—entirely in favor of it. I appreciate the sentiment of Mr. Craig and it has a strong effect upon me personally; but I don't think in my capacity as a legislator, I have the right to let my personal feelings interfere with my duties to my constituents or my duties to the State.

I think here is a place that will provide for two hundred and fifty of these unfortunates. It will soon be empty. Then it will be of no use. It is of no use as a prison. It might be used as a hospital for the sick that might be in the prison; but I can safely say it is entirely useless. It cost \$40,000 or \$50,000 to establish it. It is very much needed. I understand from Dr. MacDonald and others here that they need it.

Mr. -: It originally cost a quarter of a million dollare.

Senator Hunter: This will lie idle if this bill does not pass. It asks for an appropriation of \$30,000; and that \$30,000 is ample for the maintenance of the inmates until the counties from which they are sent will commence to pay.

Now I don't want to take up the time of the committee; but when it is stated that Warden Durston was opposed to this thing, why he is not opposed to this bill any more than I am. He occupies just exactly the same position as I do. He is in favor of devoting it to this purpose in this emergency. I think myself that the sentiment of the people would change, and as the necessities of the case are done away with, by providing other places for these people, I think it could be turned into something of that kind, a prison for women. The sentiment ought to be educated up to that and at once. I think that if there is a crying need for the criminal classes of this State, it is somewhere to put the criminal women.

Mr. Craig: I was just coming to the point with regard to the permanency of the institution at Auburn. I have been advised, but I did not intend to state it until the gentleman had introduced his statement—but I have been advised that there is an ulterior purpose in future years, to ask the Legislature to provide a new plant in Cayuga County, for the proposed State hospital, and that would be at a great expense, and in a county contiguous to Willard. But I will assume the purpose to be as the Senator says is his idea and recommendation, that it should be only temporary.

Gentlemen, that is all I ask. I ask to have the legislation on this subject show that it is only a temporary expedient, for domiciliary residence of the poor insane, if they are to be domiciled temporarily at all. The moment you pass a bill establishing a State district, or a State hospital, that moment you make it permanent. There is not any use quibbling over this proposition. If you pass this bill, there is going to be a permanent State Hospital at Auburn or in Cayuga county. I am no prophet, but any man of common sense can see that.

Now, gentlemen, I have an expedient. You have been asking me questions, and I am going to answer them all. I am ex-officio a member of the board for the appraisal of county insane asylums, as well as of the board for districting the State; and I state facts now, which are very pertinent and very important on this whole matter. The appraisal board has appraised the farm in Erie County, which was intended for a county asylum, at \$50,000. A bill was introduced last winter, but did not pass; a bill could be passed, and that would be a good place for a temporary domicile for the insane.

Senator Erwin: There is a bill pending before our committee, to buy the farm up there in Buffalo.

Mr. Craig: It would be better than this plan. Again, we appraised the insane asylum in Oneida County, and that has a capacity of 350. While it is adjacent to the poor-house, it is on independent land with a farm; and I say, gentlemen, that it is infinitely preferable to the association with the prison.

Now, better still, in Ulster County, we appraised the new building, with lands, of the insane asylum there, at \$30,000; and if I am advised correctly, I think that the bill for the transfer of its title to the State has passed. If

not, it will pass, because there is a general statute for it. That is a new building, and it is an admirable plant. It has a capacity of about 125. The defect there was in the administration.

Better still, and best of all, Cattaraugus County has cottage buildings, on the cottage or colony plan, for the insane, and it will accommodate 135.

Now, actually or potentially, all these plants are or will be the property of the State.

Gentlemen, the State Care Act, and its success, is as near my heart as it is Mr. Brown's or Dr. MacDonald's. In its behalf, and to maintain its principle, and to avoid a blot on its fair fame, I propose that there be a short act, taking some property for the temporary accommodation of the chronic insane to the number of 250.

Senator Erwin: I understand that you are in favor of having this turned into a hospital, if it is only temporary?

Mr. Craig: If at all it should be made temporary, and provision should be made for permanent care of the inmates in cottages on the grounds of existing State hospitals.

My final proposition, which should be regarded as conclusive, is, that whereas the proposed building now under the government and control of the Superintendent of State Prisons has only about eight acres of land, of which only part is available; and whereas it is conceded as a maxim among alienists and asylum specialists that for the sake of economy as well as of humanity, every hospital or asylum for the insane should have at least one acre of land for every patient; therefore any attempt to give proper care and treatment to the honest poor of Cayuga County, when insane, in this adjunct of the prison system, on any proper basis of economy or humanity, must prove abortive.

I thank you, gentlemen, for your attention. In my protest against this bill which, in my opinion, is an unnecessary departure from the policy of the State Care Act, and a prostitution of its spirit, I have appeared not only in my capacity as a member of the districting board, and a member of the appraisal board, but also in my representative capacity as the president of the State Board of Charities, which has directed me to voice the unanimous opposition of its members and officers to this unjust and impolitic and immature bill now pending before your committee.

